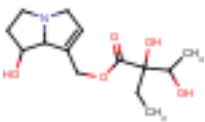
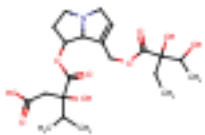
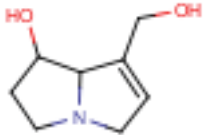
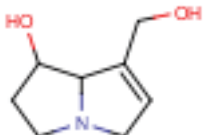
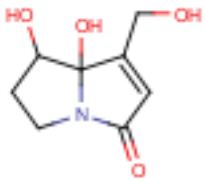
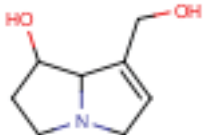
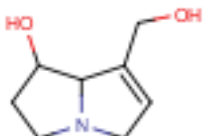
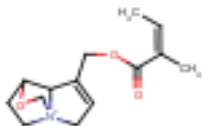
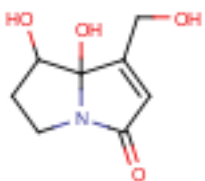


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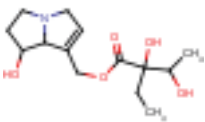
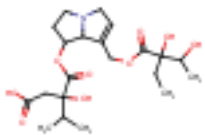
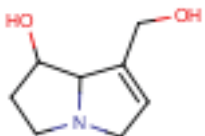
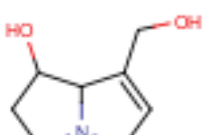
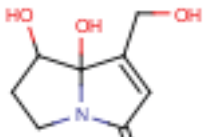
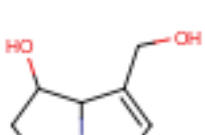
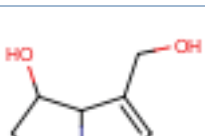
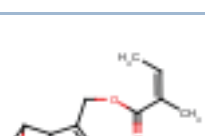
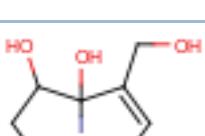
資料 1	ピロリジジナルカロイド類のリスト
資料 2	コンフリーの粗塩基分画の LC-MS
資料 3	コンフリーより分離した化合物 1-4 の NMR スペクトル
資料 4	コンフリーより分離した化合物 1-3 の ESI-MS チャート
資料 5	コンフリーより分離した化合物 10-12 の NMR チャート
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資料 8	フキより分離した化合物 13-16 の NMR スペクトル
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資料 12	第 5 回食品薬学シンポジウムポスター
資料 13	Retrorcine の ^1H -NMR データと安定性の確認
資料 14	Senkirkine (15) の定量 NMR データ
資料 15	コンフリーより分離した化合物 1, 2, 10-12 の LC-MS/MS スペクトル

資料1 ピロリジジナルカロイド類のリスト

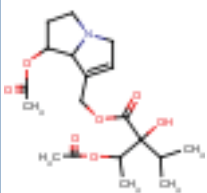
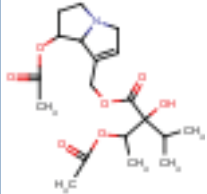
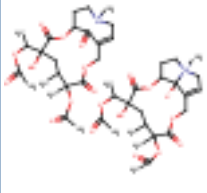
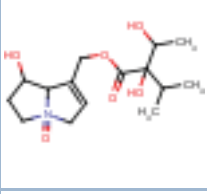
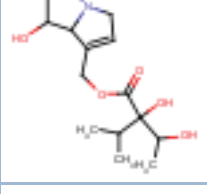
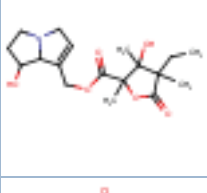
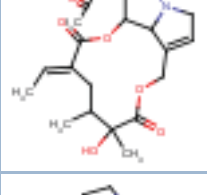
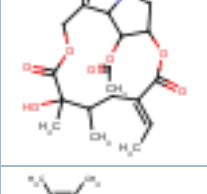
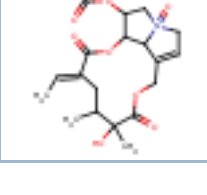
Biological Source	Chemical Name	Molecular Formula	Structure
	Ideamine A	$C_{14}H_{23}NO_5$	
	12-Seco-14-deoxyparsonsianine	$C_{21}H_{33}NO_9$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol	$C_8H_{13}NO_2$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7ξ,8ξ)-form	$C_8H_{13}NO_2$	
	5,6,7,7a-Tetrahydro-7,7a-dihydroxy-1-(hydroxymethyl)-3 <i>H</i> -pyrrolizin-3-one; (7 <i>R</i> *,7 <i>aR</i> *)-form	$C_8H_{11}NO_4$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>S</i>)-form	$C_8H_{13}NO_2$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>S</i>)-form	$C_8H_{13}NO_2$	
	Petranine	$C_{14}H_{20}NO_3$	
	5,6,7,7a-Tetrahydro-7,7a-dihydroxy-1-(hydroxymethyl)-3 <i>H</i> -pyrrolizin-3-one	$C_8H_{11}NO_4$	

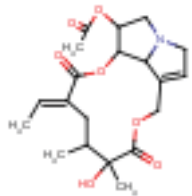
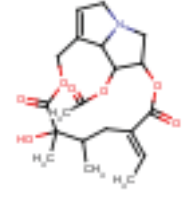
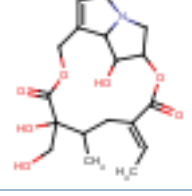
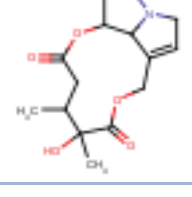
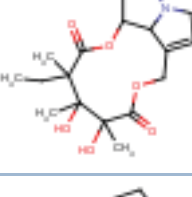
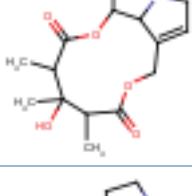
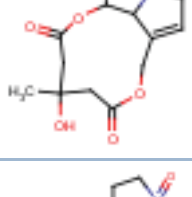
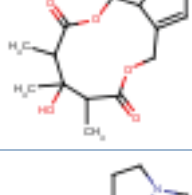
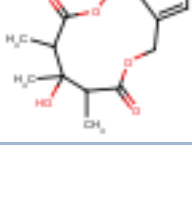
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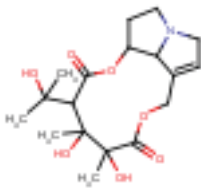
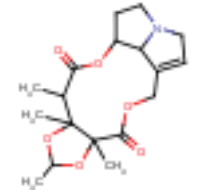
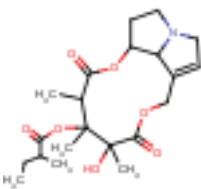
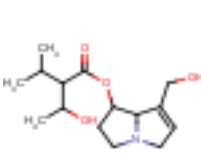
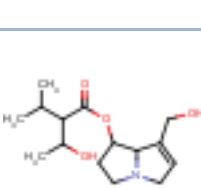
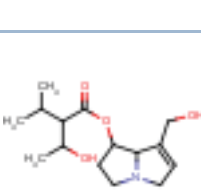
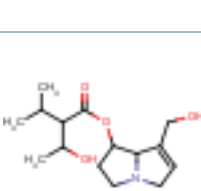
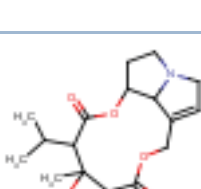
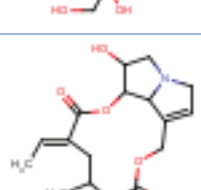
資料 1	ピロリジジナルカロイド類のリスト
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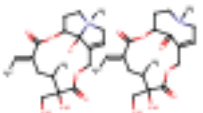
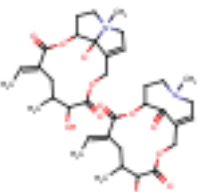
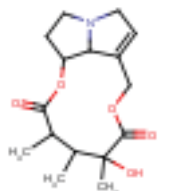
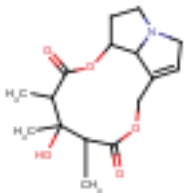
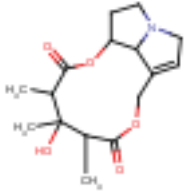
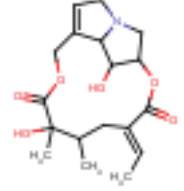
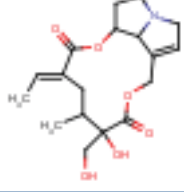
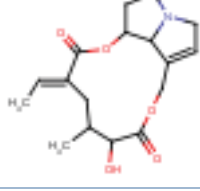
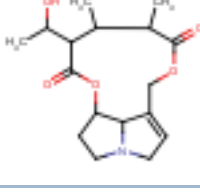
Biological Source	Chemical Name	Molecular Formula	Structure
	Ideamine A	$C_{14}H_{23}NO_5$	
	12-Seco-14-deoxyparsonsianine	$C_{21}H_{33}NO_9$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol	$C_8H_{13}NO_2$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7ξ,8ξ)-form	$C_8H_{13}NO_2$	
	5,6,7,7a-Tetrahydro-7,7a-dihydroxy-1-(hydroxymethyl)-3 <i>H</i> -pyrrolizin-3-one; (7 <i>R</i> *,7 <i>aR</i> *)-form	$C_8H_{11}NO_4$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>S</i>)-form	$C_8H_{13}NO_2$	
	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>S</i>)-form	$C_8H_{13}NO_2$	
	Petranine	$C_{14}H_{20}NO_3$	
	5,6,7,7a-Tetrahydro-7,7a-dihydroxy-1-(hydroxymethyl)-3 <i>H</i> -pyrrolizin-3-one	$C_8H_{11}NO_4$	

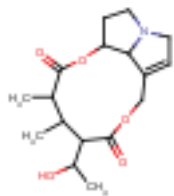
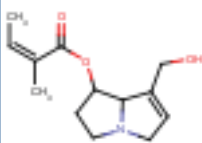
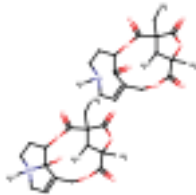
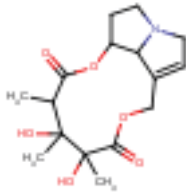
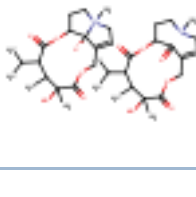
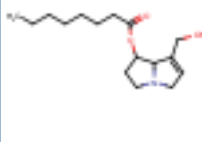
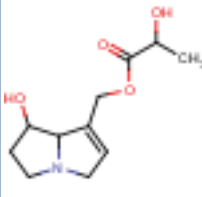
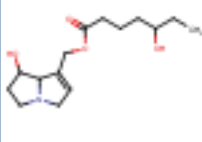
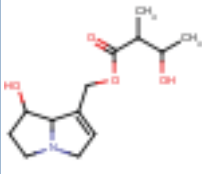
Alkaloid from <i>Ageratum houstonianum</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7- <i>O</i> -(2 <i>S</i> -Hydroxy-2,3-dimethylbutanoyl)	$C_{14}H_{23}NO_4$	
Alkaloid from <i>Ageratum houstonianum</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 9- <i>O</i> -(2 <i>S</i> -Hydroxy-2,3-dimethylbutanoyl)	$C_{14}H_{23}NO_4$	
Alkaloid from <i>Ageratum houstonianum</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9- <i>O</i> -(2 <i>S</i> -Hydroxy-2,3-dimethylbutanoyl)	$C_{14}H_{23}NO_4$	
Alkaloid from <i>Alkanna tinctoria</i> (Boraginaceae)	Dihydroxytriangularine	$C_{18}H_{27}NO_7$	
Alkaloid from <i>Amsinckia douglasiana</i> and <i>Amsinckia tessellata</i> var. <i>gloriosa</i>	Heliospathuline; 3'-Epimer	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Amsinckia intermedia</i> (Boraginaceae)	Indicine; 2' or 3'-Epimer, O ^{3'} -Me	$C_{16}H_{27}NO_5$	
Alkaloid from <i>Amsinckia intermedia</i> and <i>Cryptantha crassipes</i> . Isol. from adult bodies of the Apocynaceae-feeding danaine butterfly <i>Idea leuconoe</i>	Intermedine; 3'-Epimer, <i>N</i> -oxide	$C_{15}H_{25}NO_6$	
Alkaloid from <i>Amsinckia lycopoides</i> , <i>Amsinckia hispida</i> , <i>Eupatorium coelestinum</i> , <i>Anchusa officinalis</i> , <i>Echium plantagineum</i> , <i>Heliotropium spathulatum</i> , etc.	Intermedine; 3'-Epimer	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Amsinckia menziesii</i>	Intermedine; 3'-Epimer, 3'-Ac	$C_{17}H_{27}NO_6$	

Alkaloid from <i>Amsinckia menziesii</i>	Intermedine; 3'-Epimer, 3',7-di-Ac	$C_{19}H_{29}NO_7$	
Alkaloid from <i>Amsinckia menziesii</i> var. <i>intermedia</i>	Intermedine; 3',7-Di-Ac	$C_{19}H_{29}NO_7$	
Alkaloid from <i>Cacalia floridana</i> (Compositae)	Onetine; O^{12}, O^{20} -Di-Ac	$C_{23}H_{33}NO_{10}$	
Alkaloid from <i>Cerinth glabra</i> and <i>Cryptantha crassipes</i>	Intermedine; <i>N</i> -Oxide	$C_{15}H_{25}NO_6$	
Alkaloid from <i>Critonia morifolia</i>	Indicine; 3'-Epimer	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Crotalaria aegyptiaca</i> (Leguminosae)	Crotalarine lactone	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Crotalaria agatiflora</i> (Leguminosae)	Anacrotine; O^6 -Ac	$C_{20}H_{27}NO_7$	
Alkaloid from <i>Crotalaria agatiflora</i> (Leguminosae)	Madurensine; (15 <i>Z</i>)-Isomer, O^7 -Ac	$C_{20}H_{27}NO_7$	
Alkaloid from <i>Crotalaria agatiflora</i> (Leguminosae)	Anacrotine; (<i>E</i>)-Isomer, O^6 -angeloyl, <i>N</i> -oxide	$C_{23}H_{31}NO_8$	

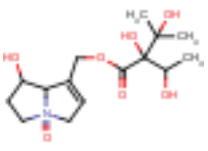
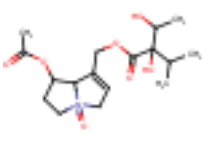
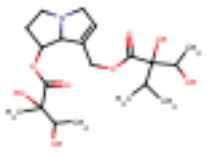
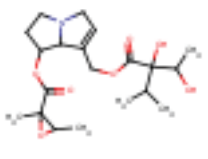
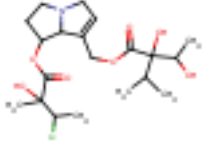
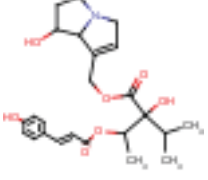
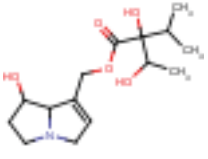
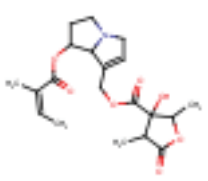
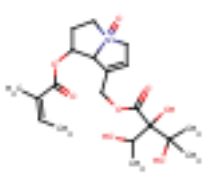
Alkaloid from <i>Crotalaria agatiflora</i> (Leguminosae)	Anacrotine; (<i>E</i>)-Isomer, O ⁶ -Ac	C ₂₀ H ₂₇ NO ₇	
Alkaloid from <i>Crotalaria agatiflora</i> and <i>Crotalaria rosenii</i> (Leguminosae)	Madurensine; O ⁷ -Ac	C ₂₀ H ₂₇ NO ₇	
Alkaloid from <i>Crotalaria agatiflora</i> and <i>Crotalaria rosenii</i> (Leguminosae)	Madurensine; 18-Hydroxy	C ₁₈ H ₂₅ NO ₇	
Alkaloid from <i>Crotalaria barbata</i> (Leguminosae)	Crobarbatine	C ₁₅ H ₂₁ NO ₅	
Alkaloid from <i>Crotalaria burhia</i> and <i>Crotalaria aegyptiaca</i> (Leguminosae)	Crotalarine	C ₁₈ H ₂₇ NO ₆	
Alkaloid from <i>Crotalaria crispata</i> and <i>Crotalaria madurensis</i> (Leguminosae)	Fulvine; 13-Epimer	C ₁₆ H ₂₃ NO ₅	
Alkaloid from <i>Crotalaria dura</i> and <i>Crotalaria globifera</i> (Leguminosae)	Dicrotaline	C ₁₄ H ₁₉ NO ₅	
Alkaloid from <i>Crotalaria fulva</i> (Leguminosae)	Fulvine; N-Oxide	C ₁₆ H ₂₃ NO ₆	
Alkaloid from <i>Crotalaria fulva</i> , <i>Crotalaria crispata</i> , <i>Crotalaria madurensis</i> and <i>Crotalaria paniculata</i> (Leguminosae)	Fulvine	C ₁₆ H ₂₃ NO ₅	

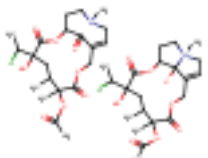
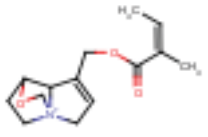
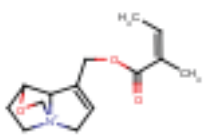
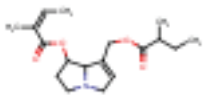
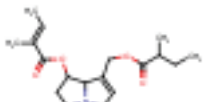
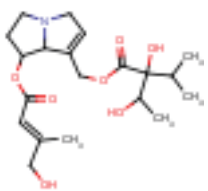
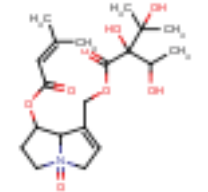
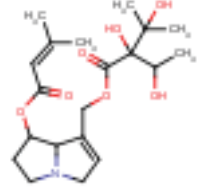
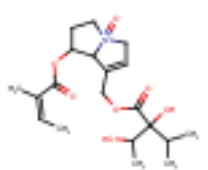
Alkaloid from <i>Crotalaria globifera</i> seeds (Leguminosae)	Trichodesmine; 19-Hydroxy	$C_{18}H_{27}NO_7$	
Alkaloid from <i>Crotalaria grahamiana</i> (Leguminosae)	Monocrotaline; 12,13-Cyclic acetaldehyde acetal	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Crotalaria grahamiana</i> seeds (Leguminosae)	Monocrotaline; O^{13} -(2-Methylbutanoyl)	$C_{21}H_{31}NO_7$	
Alkaloid from <i>Crotalaria juncea</i>	Hemijunceine	$C_{15}H_{25}NO_4$	
Alkaloid from <i>Crotalaria juncea</i>	Hemijunceine; Stereoisomer (1)	$C_{15}H_{25}NO_4$	
Alkaloid from <i>Crotalaria juncea</i>	Hemijunceine; Stereoisomer (3)	$C_{15}H_{25}NO_4$	
Alkaloid from <i>Crotalaria juncea</i>	Hemijunceine; Stereoisomer (2)	$C_{15}H_{25}NO_4$	
Alkaloid from <i>Crotalaria juncea</i> and <i>Crotalaria rubiginosa</i> (Leguminosae)	Trichodesmine; 17-Hydroxy	$C_{18}H_{27}NO_7$	
Alkaloid from <i>Crotalaria laburnifolia</i> (Leguminosae)	Anacrotine	$C_{18}H_{25}NO_6$	

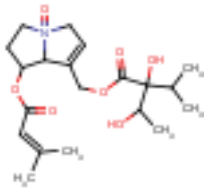
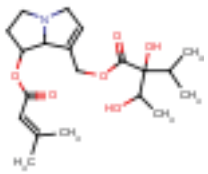
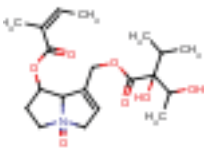
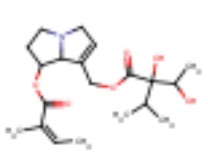
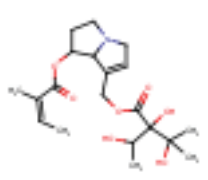
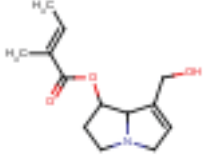
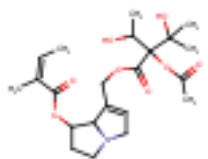
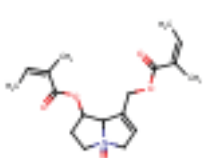
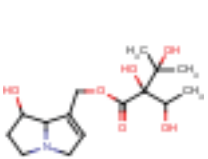
Alkaloid from <i>Crotalaria laburnifolia</i> (Leguminosae)	Senkirkine; 18-Hydroxy	$C_{19}H_{27}NO_7$	
Alkaloid from <i>Crotalaria laburnifolia</i> (Leguminosae)	Crotafoline	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Crotalaria leschenaultii</i> (Leguminosae)	Crotaleschenine	$C_{16}H_{23}NO_5$	
Alkaloid from <i>Crotalaria madurensis</i> (Leguminosae)	Fulvine; 12-Epimer or 13,14-diepimer (2)	$C_{16}H_{23}NO_5$	
Alkaloid from <i>Crotalaria madurensis</i> (Leguminosae)	Fulvine; 12-Epimer or 13,14-diepimer (1)	$C_{16}H_{23}NO_5$	
Alkaloid from <i>Crotalaria madurensis</i> , <i>Crotalaria agatiflora</i> and <i>Crotalaria rosenii</i> (Leguminosae)	Madurensine	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Crotalaria mucronata</i> (Leguminosae)	Retrorsine; Stereoisomer	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Crotalaria mucronata</i> , <i>Crotalaria naragutensis</i> and <i>Crotalaria striata</i> (Leguminosae)	Nilgirine	$C_{17}H_{23}NO_5$	
Alkaloid from <i>Crotalaria nana</i> (Leguminosae)	Crotananine	$C_{17}H_{25}NO_5$	

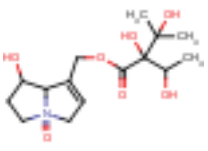
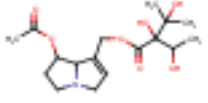
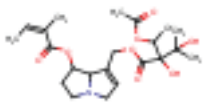
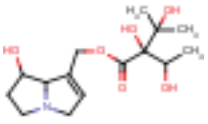
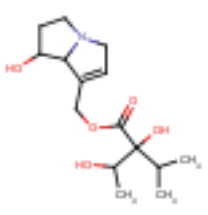
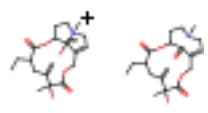
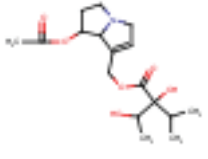
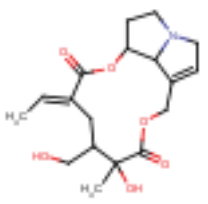
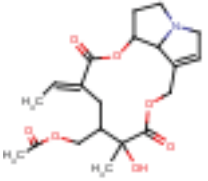
Alkaloid from <i>Crotalaria nana</i> seeds (Leguminosae)	Cronaburmine	$C_{17}H_{25}NO_5$	
Alkaloid from <i>Crotalaria officinale</i> , other <i>Crotalaria</i> spp., <i>Heliotropium eichwaldii</i> , <i>Senecio crispatis</i> , <i>Senecio rivularis</i> and other spp. Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 7-Angeloyl	$C_{13}H_{19}NO_3$	
Alkaloid from <i>Crotalaria retusa</i> , <i>Crotalaria crassipes</i> , <i>Crotalaria mitchellii</i> and <i>Crotalaria novae-hollandiae</i> (Leguminosae)	Retusamine	$C_{19}H_{25}NO_7$	
Alkaloid from <i>Crotalaria retusa</i> , <i>Crotalaria spectabilis</i> , <i>Crotalaria aegyptiaca</i> , <i>Crotalaria burhia</i> and <i>Lindelofia spectabilis</i> (Leguminosae, Boraginaceae)	Monocrotaline	$C_{16}H_{23}NO_6$	
Alkaloid from <i>Crotalaria semperflorens</i> and <i>Crotalaria aegyptiaca</i>	Crosemperine	$C_{19}H_{29}NO_6$	
Alkaloid from <i>Crotalaria</i> sp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>ξ</i> ,8 <i>ξ</i>)-form, 7-Octanoyl	$C_{16}H_{27}NO_3$	
Alkaloid from <i>Crotalaria</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>ξ</i> ,8 <i>ξ</i>)-form, 9-O-(2-Hydroxypropanoyl)	$C_{11}H_{17}NO_4$	
Alkaloid from <i>Crotalaria</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>ξ</i> ,8 <i>ξ</i>)-form, 9-O-(5-Hydroxyheptanoyl)	$C_{15}H_{25}NO_4$	
Alkaloid from <i>Crotalaria</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>ξ</i> ,8 <i>ξ</i>)-form, 9-O-(3-Hydroxy-2-methylbutanoyl)	$C_{13}H_{21}NO_4$	

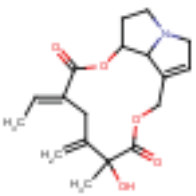
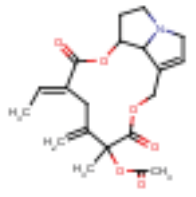
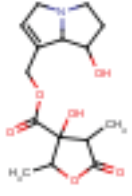
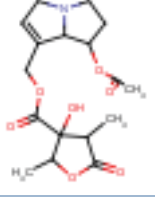
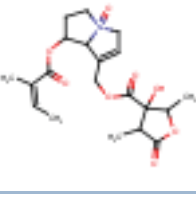
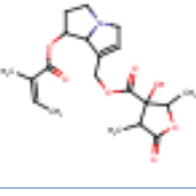
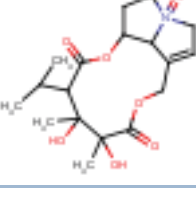
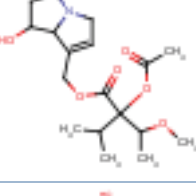
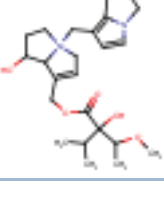
Alkaloid from <i>Crotalaria trifoliastrum</i> (Leguminosae)	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9-Me ether, 7-Ac	$C_{11}H_{17}NO_3$	
Alkaloid from <i>Crotalaria trifoliastrum</i> , <i>Crotalaria aridicola</i> and <i>Crotalaria medicaginea</i> (Leguminosae)	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 9-Me ether	$C_9H_{15}NO_2$	
Alkaloid from <i>Crotalaria verrucosa</i> (Leguminosae)	Senkirkine; 15 <i>E</i> -Isomer, 12-Ac, stereoisomer	$C_{21}H_{29}NO_7$	
Alkaloid from <i>Crotalaria verrucosa</i> and <i>Crotalaria walkeri</i> (Leguminosae)	Senkirkine; 15 <i>E</i> -Isomer, stereoisomer	$C_{19}H_{27}NO_6$	
Alkaloid from <i>Crotalaria virgulata</i> ssp. <i>grantiana</i> (<i>Crotalaria grantiana</i>) and <i>Crotalaria globifera</i> (Leguminosae)	Grantianine	$C_{18}H_{23}NO_7$	
Alkaloid from <i>Crotalaria virgulata</i> subsp. <i>grantiana</i> and from the seeds of <i>Crotalaria globifera</i> (Leguminosae)	Grantaline	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Crotalaria walkeri</i> (Leguminosae)	Senkirkine; Stereoisomer	$C_{19}H_{27}NO_6$	
Alkaloid from <i>Cryptantha crassipes</i>	Intermedine; 3'-Epimer, 3'-Ac, N-oxide	$C_{17}H_{27}NO_7$	
Alkaloid from <i>Cryptantha crassipes</i>	Intermedine; 3'-Ac, N-oxide	$C_{17}H_{27}NO_7$	

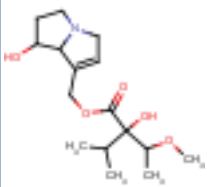
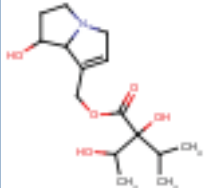
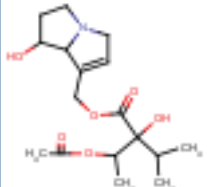
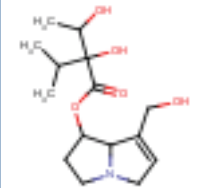
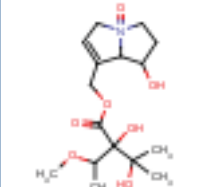
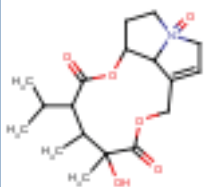
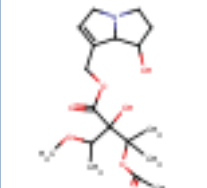
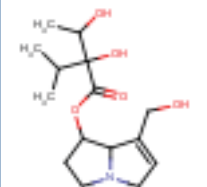
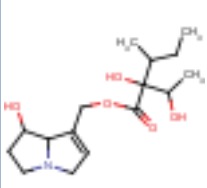
Alkaloid from <i>Cryptantha crassipes</i> and <i>Echium vulgare</i>	Leptanthine; 3'-Epimer, <i>N</i> -oxide	$C_{15}H_{25}NO_7$	
Alkaloid from <i>Cryptantha crassipes</i> and <i>Symphytum</i> sp.	Intermedine; 7-Ac, <i>N</i> -oxide	$C_{17}H_{27}NO_7$	
Alkaloid from <i>Cryptantha leiocarpa</i> and <i>Cryptantha clevelandii</i>	Echiumine; 2'',3''-Dihydro, 2'' <i>R</i> *,3'' <i>S</i> *-dihydroxy	$C_{20}H_{33}NO_8$	
Alkaloid from <i>Cryptantha leiocarpa</i> and <i>Cryptantha clevelandii</i>	Echiumine; 2'' <i>R</i> *,3'' <i>R</i> *-Epoxide	$C_{20}H_{31}NO_7$	
Alkaloid from <i>Cryptantha leiocarpa</i> and <i>Cryptantha clevelandii</i>	Echiumine; 2'',3''-Dihydro, 2'' <i>R</i> *-hydroxy, 3'' <i>S</i> *-chloro	$C_{20}H_{32}ClNO_7$	
Alkaloid from <i>Cynoglossum creticum</i> (Boraginaceae)	Echinatine; 3'-O-(4-Hydroxycinnamoyl)	$C_{24}H_{31}NO_7$	
Alkaloid from <i>Cynoglossum furcatum</i>	Echinatine; 2',3'-Diepimer	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Cynoglossum latifolium</i> and <i>Hackelia floribunda</i> (Boraginaceae)	Hackelidine; 7-Angeloyl	$C_{20}H_{27}NO_7$	
Alkaloid from <i>Cynoglossum pictum</i> and <i>Paracynoglossum imeretinum</i> (preferred genus name <i>Cynoglossum</i>)	Heliosupine; <i>N</i> -Oxide	$C_{20}H_{31}NO_8$	

Alkaloid from <i>Doronicum macrophyllum</i> roots and from <i>Senecio abrotanifolius</i> and <i>Senecio clelandii</i> (Compositae)	Onetine; 20-Deoxy, 20-chloro, O ¹² -Ac	C ₂₁ H ₃₀ ClNO ₈	
Alkaloid from <i>Echium glomeratum</i>	Petranine; (7 <i>S</i> ,7 <i>aR</i>)-form	C ₁₄ H ₂₀ NO ₃	
Alkaloid from <i>Echium glomeratum</i>	Petranine; (7 <i>S</i> ,7 <i>aS</i>)-form	C ₁₄ H ₂₀ NO ₃	
Alkaloid from <i>Echium horridum</i> and <i>Echium rauwolfii</i>	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7-Angeloyl, 9-O-(2-methylbutanoyl)	C ₁₈ H ₂₇ NO ₄	
Alkaloid from <i>Echium horridum</i> and <i>Echium rauwolfii</i>	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7-Tigloyl, 9-O-(2-methylbutanoyl)	C ₁₈ H ₂₇ NO ₄	
Alkaloid from <i>Echium humile</i>	Intermedine; 4'''-Hydroxy, 7-O-(3-methyl-2-butenoyl)	C ₂₀ H ₃₁ NO ₇	
Alkaloid from <i>Echium humile</i>	Echiumiline; N-Oxide	C ₂₀ H ₃₁ NO ₈	
Alkaloid from <i>Echium humile</i> and <i>Echium vulgare</i>	Echiumiline	C ₂₀ H ₃₁ NO ₇	
Alkaloid from <i>Echium pininana</i>	Echiumine; 2'' <i>E</i> -Isomer, N-oxide	C ₂₀ H ₃₁ NO ₇	

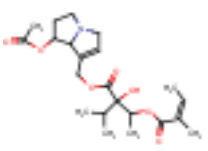
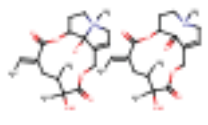
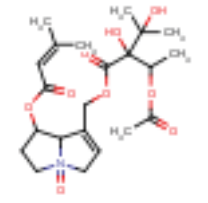
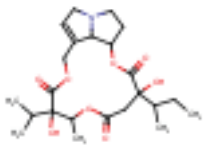
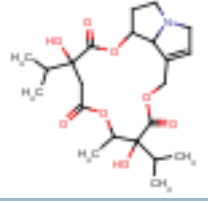
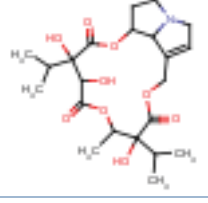
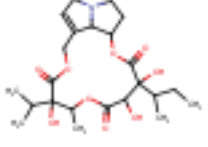
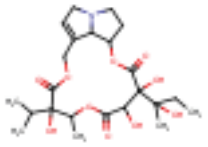
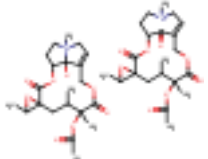
Alkaloid from <i>Echium pininana</i> (Boraginaceae)	Intermedine; 7-O-(3-Methyl-2-butenoyl), <i>N</i> -oxide	$C_{20}H_{31}NO_7$	
Alkaloid from <i>Echium pininana</i> (Boraginaceae)	Intermedine; 7-O-(3-Methyl-2-butenoyl)	$C_{20}H_{31}NO_6$	
Alkaloid from <i>Echium plantagineum</i> and <i>Cryptantha crassipes</i>	Echiumine; <i>N</i> -Oxide	$C_{20}H_{31}NO_7$	
Alkaloid from <i>Echium plantagineum</i> , <i>Amsinckia intermedia</i> , <i>Cryptantha leiocarpa</i> and <i>Cryptantha clevelandii</i>	Echiumine	$C_{20}H_{31}NO_6$	
Alkaloid from <i>Echium plantagineum</i> , <i>Symphytum orientale</i> , <i>Symphytum uplandicum</i> , <i>Symphytum tuberosum</i> , <i>Echium rauwolfii</i> and <i>Echium horridum</i>	Echiumine; 3'-Epimer, 1'''-hydroxy	$C_{20}H_{31}NO_7$	
Alkaloid from <i>Echium</i> spp. Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7-Tigloyl	$C_{13}H_{19}NO_3$	
Alkaloid from <i>Echium vulgare</i>	Echiumine; 3'-Epimer, 1'''-hydroxy, 3'-Ac	$C_{22}H_{33}NO_8$	
Alkaloid from <i>Echium vulgare</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 7,9-Diangeloyl, <i>N</i> -oxide	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Echium vulgare</i> and <i>Onosma leptantha</i>	Leptanthine	$C_{15}H_{25}NO_6$	

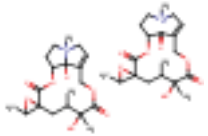
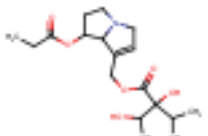
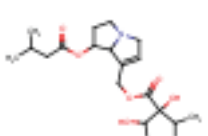
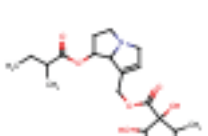
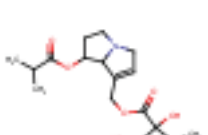
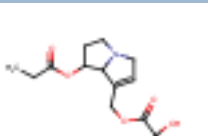
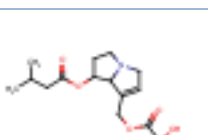
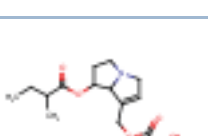
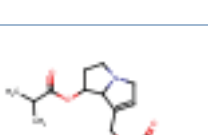
Alkaloid from <i>Echium vulgare</i> and <i>Onosma leptantha</i>	Leptanthine; N-Oxide	$C_{15}H_{25}NO_7$	
Alkaloid from <i>Echium vulgare</i> and <i>Symphytum uplandicum</i>	Leptanthine; 7-Ac	$C_{17}H_{27}NO_7$	
Alkaloid from <i>Echium vulgare</i> pollen	Echiumine; 3'-Epimer, 1'''-hydroxy, 5'-Ac	$C_{22}H_{33}NO_8$	
Alkaloid from <i>Echium vulgare</i> pollen	Leptanthine; 3'-Epimer	$C_{15}H_{25}NO_6$	
Alkaloid from <i>Echium vulgare</i> , <i>Rindera echinata</i> , <i>Lithospermum canescens</i> , <i>Cynoglossum amabile</i> , <i>Cynoglossum creticum</i> , <i>Eupatorium maculatum</i> , <i>Eupatorium cannabinum</i> and others. Also from <i>Anchusa</i> spp., poss. as a stereoisomer (Boraginaceae, Compositae)	Echinatine	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Emilia flammea</i> (Compositae)	Emiline	$C_{19}H_{27}NO_6$	
Alkaloid from <i>Eupatorium fortunei</i> and <i>Symphyti Radix</i> (root of <i>Symphytum officinale</i>)	Echinatine; 3'-Epimer, 7-Ac	$C_{17}H_{27}NO_6$	
Alkaloid from <i>Gynura scandens</i> (Compositae)	Gynuramine	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Gynura scandens</i> (Compositae)	Gynuramine; 1''-Ac	$C_{20}H_{27}NO_7$	

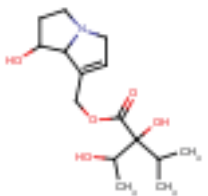
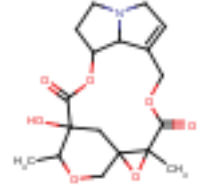
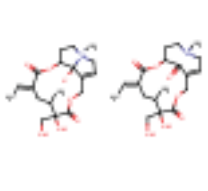
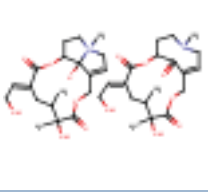
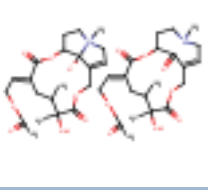
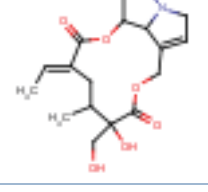
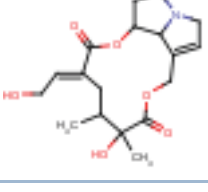
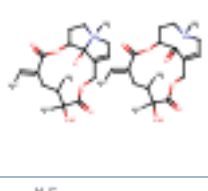
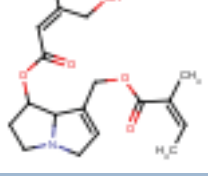
Alkaloid from <i>Gynura segetum</i> (Compositae)	Seneciphylline; 15 <i>E</i> -Isomer	$C_{18}H_{23}NO_5$	
Alkaloid from <i>Gynura segetum</i> and <i>Senecio pterophorus</i> (Compositae)	Seneciphylline; O-Ac	$C_{20}H_{25}NO_6$	
Alkaloid from <i>Hackelia californica</i> (Boraginaceae)	Hackelidine	$C_{15}H_{21}NO_6$	
Alkaloid from <i>Hackelia californica</i> (Boraginaceae)	Hackelidine; 7-Ac	$C_{17}H_{23}NO_7$	
Alkaloid from <i>Hackelia floribunda</i> (Boraginaceae)	Hackelidine; 7-Angeloyl, <i>N</i> -oxide	$C_{20}H_{27}NO_8$	
Alkaloid from <i>Hackelia longituba</i>	Hackelidine; Stereoisomer, 7-angeloyl	$C_{20}H_{27}NO_7$	
Alkaloid from <i>Heliotropium arguzioides</i> and <i>Trichodesma incanum</i>	Trichodesmine; <i>N</i> -Oxide	$C_{18}H_{27}NO_7$	
Alkaloid from <i>Heliotropium disciforme</i>	Heliotrine; 2'-Ac	$C_{18}H_{29}NO_6$	
Alkaloid from <i>Heliotropium europaeum</i> (Boraginaceae)	<i>Heliotropium europaeum</i> Alkaloid	$C_{24}H_{37}N_2O_6$	

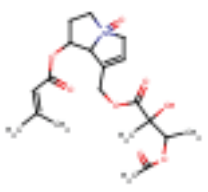
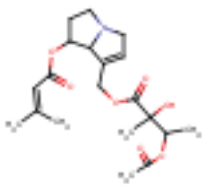
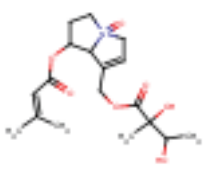
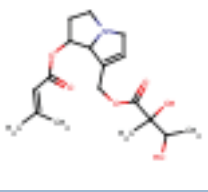
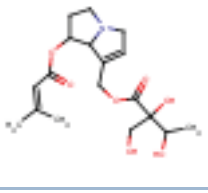
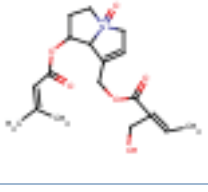
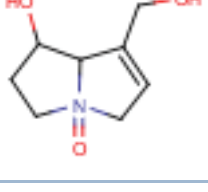
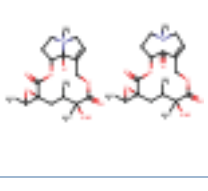
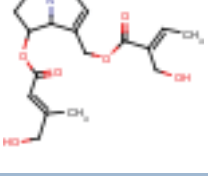
Alkaloid from <i>Heliotropium europaeum</i> , <i>Heliotropium indicum</i> and <i>Heliotropium lasiocarpum</i> (Boraginaceae)	Heliotrine	$C_{16}H_{27}NO_5$	
Alkaloid from <i>Heliotropium indicum</i> (Boraginaceae) and twigs of <i>Messerschmidia argentea</i>	Indicine	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Heliotropium indicum</i> (Boraginaceae) and twigs of <i>Messerschmidia argentea</i>	Indicine; 3'-Ac	$C_{17}H_{27}NO_6$	
Alkaloid from <i>Heliotropium keralense</i>	Heliospathuline; 2',3'-Diepimer	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Heliotropium maris-mortui</i> , <i>Heliotropium arbainense</i> , <i>Heliotropium crassifolium</i> , <i>Heliotropium marifolium</i> and <i>Heliotropium rotundifolium</i> (Boraginaceae)	Europine; N-Oxide	$C_{16}H_{27}NO_7$	
Alkaloid from <i>Heliotropium olgae</i> and <i>Trichodesma incanum</i>	Trichodesmine; 13-Deoxy, N-Oxide	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Heliotropium rotundifolium</i> (Boraginaceae)	Europine; 5'-O-Ac	$C_{18}H_{29}NO_7$	
Alkaloid from <i>Heliotropium spathulatum</i>	Heliospathuline	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Heliotropium spathulatum</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 9-O-[2-Hydroxy-2-(1-hydroxyethyl)-3-methylpentanoyl]	$C_{16}H_{27}NO_5$	

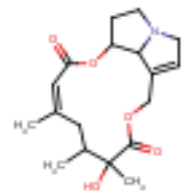
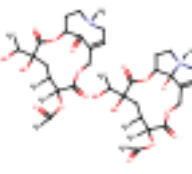
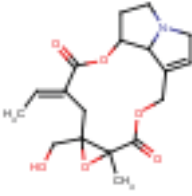
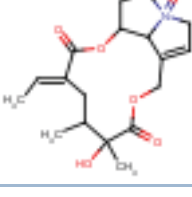
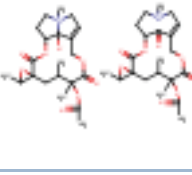
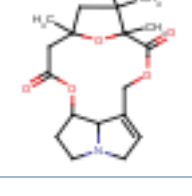
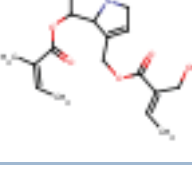
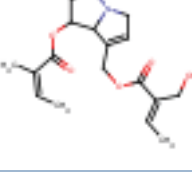
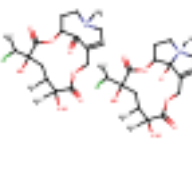
Alkaloid from <i>Heliotropium spathulium</i> (Boraginaceae)	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7- <i>O</i> -[2-Hydroxy-2-(1-hydroxyethyl)-3-methylpentanoyl]	$C_{16}H_{27}NO_5$	
Alkaloid from <i>Heliotropium</i> spp. (Boraginaceae), e.g. <i>Heliotropium europaeum</i> , <i>Heliotropium maris-mortui</i> , <i>Heliotropium ellipticum</i> , <i>Heliotropium marifolium</i> and <i>Heliotropium bovei</i>	Europine	$C_{16}H_{27}NO_6$	
Alkaloid from <i>Heliotropium supinum</i> and <i>Cynoglossum</i> spp. (Boraginaceae)	Heliosupine	$C_{20}H_{31}NO_7$	
Alkaloid from <i>Ligularia clivorum</i> and <i>Ligularia hodgsonii</i>	Clivorine	$C_{21}H_{27}NO_7$	
Alkaloid from <i>Ligularia elegans</i> , <i>Ligularia hodgsonii</i> and <i>Ligularia dentata</i> (Compositae)	Ligularine	$C_{23}H_{31}NO_9$	
Alkaloid from <i>Ligularia hodgsonii</i>	Clivorine; 20,21-Dihydro, 20ξ-hydroxy	$C_{21}H_{29}NO_8$	
Alkaloid from <i>Lindelofia macrostyla</i> (Boraginaceae)	Echinatine; <i>N</i> -Oxide	$C_{15}H_{25}NO_6$	
Alkaloid from <i>Lindelofia spectabilis</i> (Boraginaceae)	Echinatine; 7-Ac	$C_{17}H_{27}NO_6$	
Alkaloid from <i>Myosotis scorpioides</i> (Boraginaceae)	Scorpioidine	$C_{20}H_{31}NO_6$	

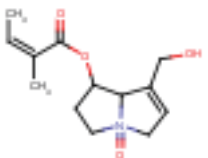
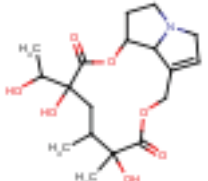
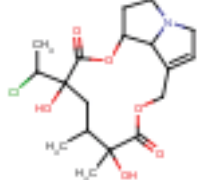
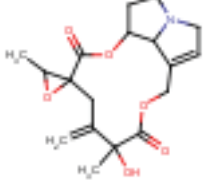
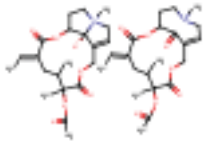
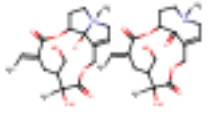
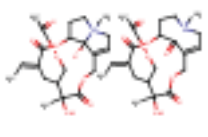
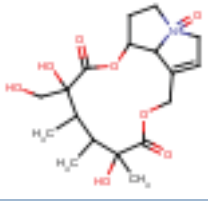
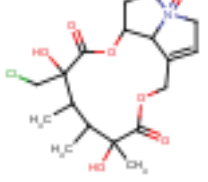
Alkaloid from <i>Myosotis scorpioides</i> (Boraginaceae)	Scorpioidine; O^7 -Ac	$C_{22}H_{33}NO_7$	
Alkaloid from <i>Nardosmia laevigata</i> , (preferred genus name <i>Petasites</i>), <i>Farfugium japonicum</i> , <i>Crotalaria laburnifolia</i> , <i>Senecio anonymus</i> , <i>Senecio kirkii</i> and others (Compositae, Leguminosae)	Senkirkine	$C_{19}H_{27}NO_6$	
Alkaloid from <i>Onosma leptantha</i>	Echihumiline; 3'-Ac, N-oxide	$C_{22}H_{33}NO_9$	
Alkaloid from <i>Parsonsia heterophylla</i> and <i>Parsonsia spiralis</i> (Apocynaceae)	17-Methylparsonsianidine; 16-Deoxy, stereoisomer	$C_{23}H_{35}NO_8$	
Alkaloid from <i>Parsonsia heterophylla</i> and <i>Parsonsia spiralis</i> (Apocynaceae)	Parsonsine	$C_{22}H_{33}NO_8$	
Alkaloid from <i>Parsonsia spiralis</i> (Apocynaceae)	Parsonsine; 16ξ-Hydroxy	$C_{22}H_{33}NO_9$	
Alkaloid from <i>Parsonsia spiralis</i> (Apocynaceae)	17-Methylparsonsianidine; Stereoisomer (?)	$C_{23}H_{35}NO_9$	
Alkaloid from <i>Parsonsia spiralis</i> (Apocynaceae)	17-Methylparsonsianidine; 24ξ-Hydroxy	$C_{23}H_{35}NO_{10}$	
Alkaloid from <i>Petasites japonicus</i> (sweet coltsfoot) (Compositae)	Petasitenine; Ac	$C_{21}H_{29}NO_8$	

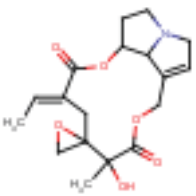
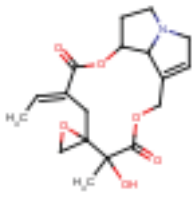
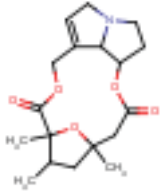
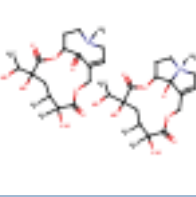
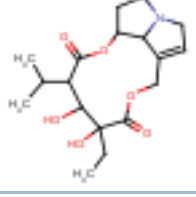
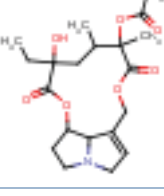
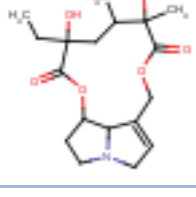
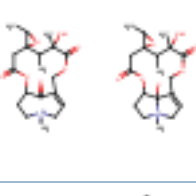
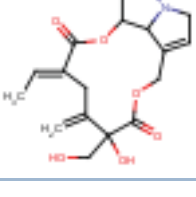
Alkaloid from <i>Petasites japonicus</i> (sweet coltsfoot) (Compositae)	Petasitenine	$C_{19}H_{27}NO_7$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 7-Propanoyl	$C_{18}H_{29}NO_6$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 3'-Epimer, 7-O-(3-methylbutanoyl)	$C_{20}H_{33}NO_6$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 3'-Epimer, 7-O-(2-methylbutanoyl)	$C_{20}H_{33}NO_6$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 3'-Epimer, 7-O-(2-methylpropanoyl)	$C_{19}H_{31}NO_6$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 3'-Epimer, 7-propanoyl	$C_{18}H_{29}NO_6$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 7-O-(3-Methylbutanoyl)	$C_{20}H_{33}NO_6$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 7-O-(2-Methylbutanoyl)	$C_{20}H_{33}NO_6$	
Alkaloid from <i>Pulmonaria obscura</i>	Intermedine; 7-O-(2-Methylpropanoyl)	$C_{19}H_{31}NO_6$	

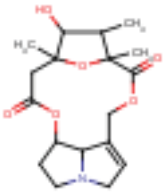
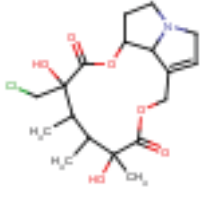
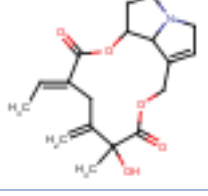
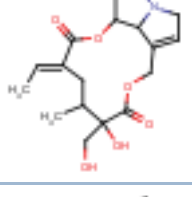
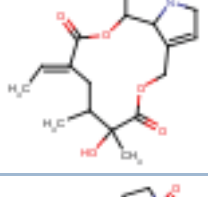
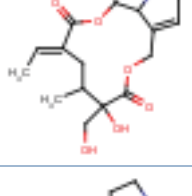
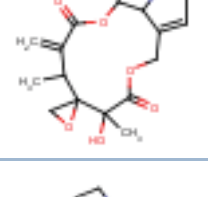
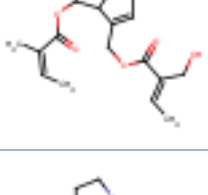
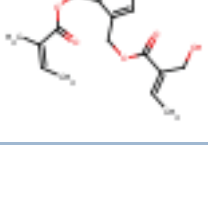
Alkaloid from <i>Rindera baldschuanica</i> and <i>Eupatorium serotinum</i> (Boraginaceae, Compositae)	Echinatine; 3'-Epimer	$C_{15}H_{25}NO_5$	
Alkaloid from <i>Senecio adonidifolius</i> and <i>Senecio dolichodoryius</i> (Compositae)	Adonifoline	$C_{18}H_{23}NO_7$	
Alkaloid from <i>Senecio anonymus</i>	Senkirkine; 15 <i>E</i> -Isomer, 18-hydroxy	$C_{19}H_{27}NO_7$	
Alkaloid from <i>Senecio anonymus</i> (Compositae)	Senkirkine; 15 <i>E</i> -Isomer, 21-hydroxy	$C_{19}H_{27}NO_7$	
Alkaloid from <i>Senecio anonymus</i> (Compositae)	Senkirkine; 15 <i>E</i> -Isomer, 21-acetoxy	$C_{21}H_{29}NO_8$	
Alkaloid from <i>Senecio anonymus</i> , <i>Crotalaria brevifolia</i> , <i>Crotalaria incana</i> , <i>Crotalaria mucronata</i> and <i>Crotalaria usaramoensis</i> (Leguminosae)	Retrorsine; 15 <i>E</i> -Isomer	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio argunensis</i> , <i>Senecio erucifolius</i> and <i>Senecio jacobaea</i> (Compositae)	Senecionine; 15 <i>E</i> -Isomer, 21-hydroxy	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio auricola</i> (Compositae)	Senkirkine; (15 <i>E</i>)-Isomer	$C_{19}H_{27}NO_6$	
Alkaloid from <i>Senecio cacaliaster</i> (Compositae)	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7- <i>O</i> -(4-Hydroxy-3-methyl-2 <i>Z</i> -butenoyl), 9-angeloyl	$C_{18}H_{25}NO_5$	

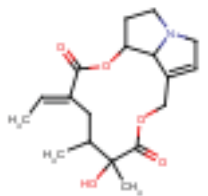
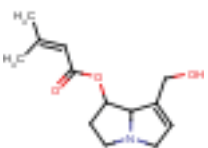
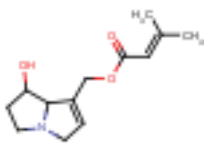
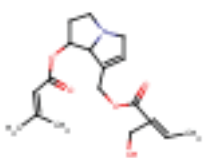
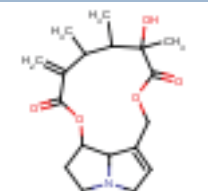
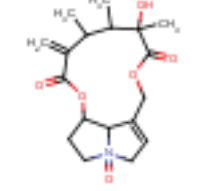
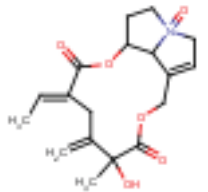
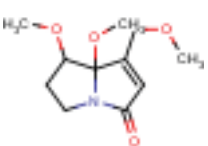
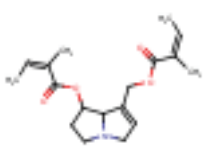
Alkaloid from <i>Senecio caudatus</i> (Compositae)	Retronecine 9-(2,3-dihydroxy-2-hydroxymethylbutanoate) 7-senecioate; 1'''-Deoxy, O ^{3''} -Ac, N-oxide	C ₂₀ H ₂₉ NO ₈	
Alkaloid from <i>Senecio caudatus</i> (Compositae)	Retronecine 9-(2,3-dihydroxy-2-hydroxymethylbutanoate) 7-senecioate; 1'''-Deoxy, O ^{3''} -Ac	C ₂₀ H ₂₉ NO ₇	
Alkaloid from <i>Senecio caudatus</i> (Compositae)	Retronecine 9-(2,3-dihydroxy-2-hydroxymethylbutanoate) 7-senecioate; 1'''-Deoxy, N-oxide	C ₁₈ H ₂₇ NO ₇	
Alkaloid from <i>Senecio caudatus</i> (Compositae)	Retronecine 9-(2,3-dihydroxy-2-hydroxymethylbutanoate) 7-senecioate; 1'''-Deoxy	C ₁₈ H ₂₇ NO ₆	
Alkaloid from <i>Senecio caudatus</i> (Compositae)	Retronecine 9-(2,3-dihydroxy-2-hydroxymethylbutanoate) 7-senecioate	C ₁₈ H ₂₇ NO ₇	
Alkaloid from <i>Senecio caudatus</i> and <i>Senecio umgeniensis</i> (Compositae)	Retronecine 9-(2,3-dihydroxy-2-hydroxymethylbutanoate) 7-senecioate; 2'',3''-Dideoxy, 2'',3''-didehydro, N -oxide	C ₁₈ H ₂₅ NO ₆	
Alkaloid from <i>Senecio caudatus</i> and <i>Werneria decora</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, N-Oxide	C ₈ H ₁₃ NO ₃	
Alkaloid from <i>Senecio cineraria</i> , <i>Senecio floridanus</i> (<i>Brachyglottis floridiana</i>), <i>Senecio fluviatilis</i> , <i>Senecio</i> <i>othonnae</i> , <i>Senecio renardi</i> and <i>Cacalia floridana</i> (Compositae)	Otosenine	C ₁₉ H ₂₇ NO ₇	
Alkaloid from <i>Senecio doria</i> (Compositae)	Doriasenine	C ₁₈ H ₂₅ NO ₆	

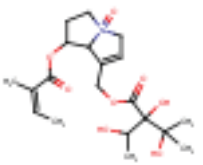
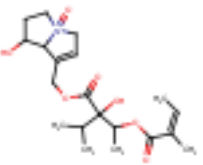
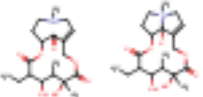
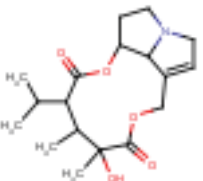
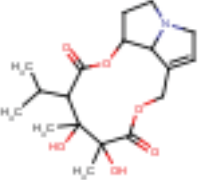
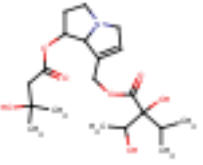
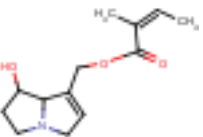
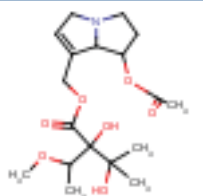
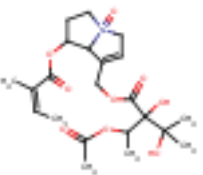
Alkaloid from <i>Senecio doricum</i> (Compositae)	Bulgarsenine; 1,2-Didehydro	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio erraticus</i> , <i>Senecio orthonnae</i> , <i>Senecio aureus</i> and <i>Cacalia floridana</i> (Compositae)	Onetine; O ¹² -Ac	$C_{21}H_{31}NO_9$	
Alkaloid from <i>Senecio erucifolius</i> , <i>Senecio aegypticus</i> , <i>Senecio erraticus</i> , <i>Senecio jacobaea</i> and <i>Senecio persoonii</i> (Compositae)	Erucifoline	$C_{18}H_{23}NO_6$	
Alkaloid from <i>Senecio erucifolius</i> , <i>Senecio nebrodensis</i> and <i>Senecio vulgaris</i>	Senecionine; 15E-Isomer, N-oxide	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio fluviatilis</i> and <i>Cacalia floridana</i> (Compositae)	Otosenine; Ac	$C_{21}H_{29}NO_8$	
Alkaloid from <i>Senecio helodes</i> and <i>Senecio roseus</i> (Compositae)	Nemorensine; 11,14-Diepimer, 1,2-didehydro, 12 S-hydroxy	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio hydrophyllus</i> (Compositae)	Triangularine; (2'E,2''E)-Isomer	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio hydrophyllus</i> and <i>Senecio mikanooides</i> (Compositae)	Triangularine; 2''E-Isomer	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio inaequidens</i> (Compositae)	Onetine; 20-Deoxy, 20-chloro	$C_{19}H_{28}ClNO_7$	

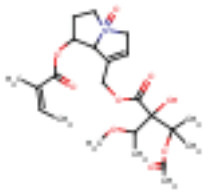
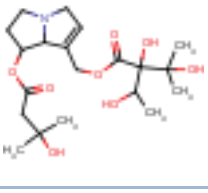
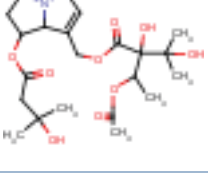
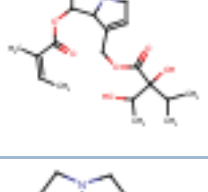
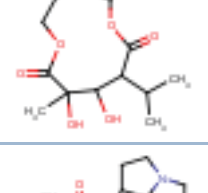
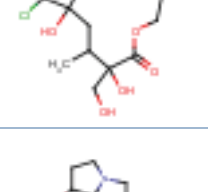
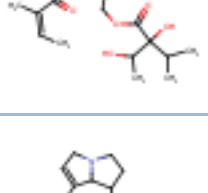
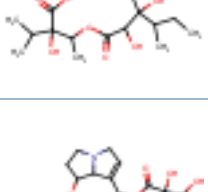
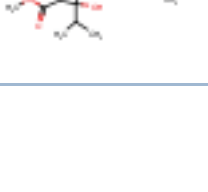
Alkaloid from <i>Senecio integrifolius</i> var. <i>fauriri</i> (Asteraceae)	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 7-Angeloyl, <i>N</i> -oxide	$C_{13}H_{19}NO_4$	
Alkaloid from <i>Senecio jacobaea</i> (Compositae)	Jacoline	$C_{18}H_{27}NO_7$	
Alkaloid from <i>Senecio jacobaea</i> (Compositae)	Jaconine	$C_{18}H_{26}ClNO_6$	
Alkaloid from <i>Senecio jacobaea</i> , <i>Senecio alpinus</i> and <i>Senecio incanus</i> (Compositae)	Jacobine; 13,19-Didehydro	$C_{18}H_{23}NO_6$	
Alkaloid from <i>Senecio kirkii</i> (Compositae)	Senkirkine; Ac	$C_{21}H_{29}NO_7$	
Alkaloid from <i>Senecio laricifolius</i> (Compositae)	Senkirkine; 19-Hydroxy	$C_{19}H_{27}NO_7$	
Alkaloid from <i>Senecio laricifolius</i> (Compositae)	Senkirkine; 19-Acetoxy	$C_{21}H_{29}NO_8$	
Alkaloid from <i>Senecio latifolius</i>	Sceleratine; <i>N</i> -Oxide	$C_{18}H_{27}NO_8$	
Alkaloid from <i>Senecio latifolius</i> (Compositae)	Sceleratine; 18-Deoxy, 18-chloro, <i>N</i> -oxide	$C_{18}H_{26}ClNO_7$	

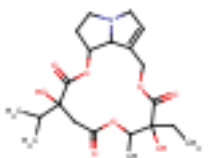
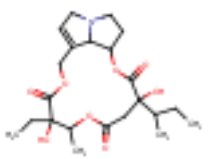
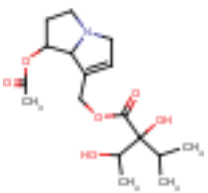
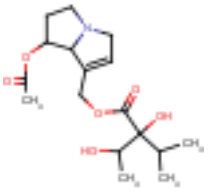
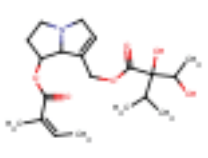
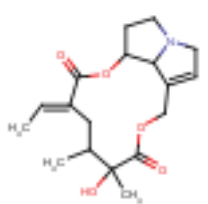
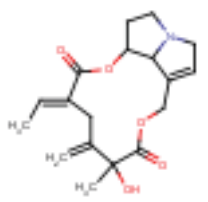
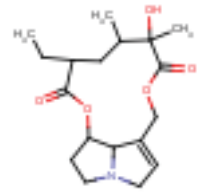
Alkaloid from <i>Senecio megaphyllus</i> (Compositae)	Seneciphylline; 15 <i>E</i> -Isomer, 13ξ,19-epoxide	C ₁₈ H ₂₃ NO ₆	
Alkaloid from <i>Senecio megaphyllus</i> and <i>Senecio usgorensis</i> (Compositae)	Seneciphylline; 13ξ,19-Epoxide	C ₁₈ H ₂₃ NO ₆	
Alkaloid from <i>Senecio nemorensis</i> and <i>Senecio mulgediifolius</i> (Compositae)	Nemorensine; 11,14-Diepimer, 1,2-didehydro	C ₁₈ H ₂₅ NO ₅	
Alkaloid from <i>Senecio othonnae</i> (Compositae)	Onetine	C ₁₉ H ₂₉ NO ₈	
Alkaloid from <i>Senecio othonnae</i> (Compositae)	Axillarine; Stereoisomer, 1'-deoxy	C ₁₈ H ₂₇ NO ₆	
Alkaloid from <i>Senecio othonniformis</i> (<i>Senecio ruwenzoriensis</i>) (Compositae)	Bisline; 12-Ac	C ₂₀ H ₂₉ NO ₇	
Alkaloid from <i>Senecio othonniformis</i> (<i>Senecio ruwenzoriensis</i>) and <i>Senecio petasis</i> (Compositae)	Bisline	C ₁₈ H ₂₇ NO ₆	
Alkaloid from <i>Senecio racemosus</i> (Compositae)	Senecioracene	C ₁₉ H ₂₇ NO ₇	
Alkaloid from <i>Senecio riddellii</i> , <i>Senecio longiflorus</i> , <i>Senecio eremophilus</i> , <i>Crotalaria juncea</i> etc. (Compositae, Leguminosae)	Seneciphylline; 18-Hydroxy	C ₁₈ H ₂₃ NO ₆	

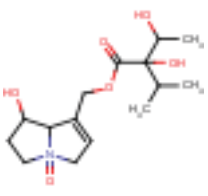
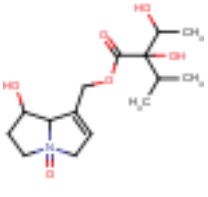
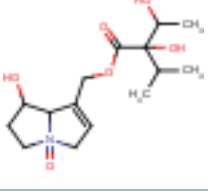
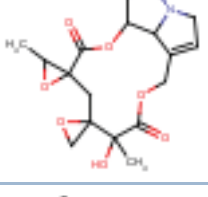
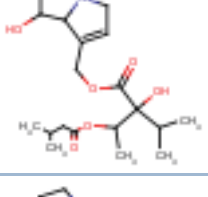
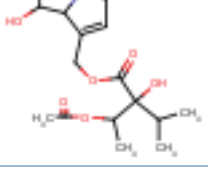
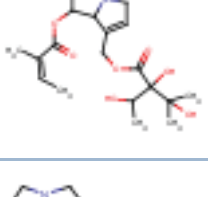
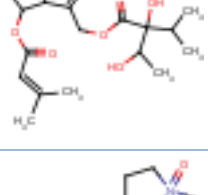
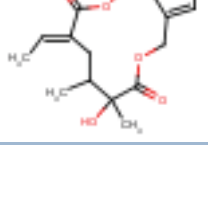
Alkaloid from <i>Senecio roseus</i> (Compositae)	Nemorensine; 11,14-Diepimer, 1,2-didehydro, 13 R-hydroxy	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio sceleratus</i> (now regouped under <i>Senecio latifolius</i>) (Compositae)	Sceleratine; 18-Deoxy, 18-chloro	$C_{18}H_{26}ClNO_6$	
Alkaloid from <i>Senecio spartioides</i> (Compositae)	Seneciphylline; 12-Epimer, 15E-isomer	$C_{18}H_{23}NO_5$	
Alkaloid from <i>Senecio</i> spp, e.g. <i>Senecio retrorsus</i> , <i>Senecio triangularis</i> and <i>Senecio anonymus</i> , <i>Crotalaria</i> spp. and <i>Erechtites quadridentata</i> (Compositae, Leguminosae)	Retrorsine	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio</i> spp., <i>Crotalaria incana</i> and other <i>Crotalaria</i> spp., <i>Cacalia hastata</i> and others (Leguminosae, Compositae)	Senecionine; 15E-Isomer	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio</i> spp., <i>Erechtites quadridentata</i> and <i>Werneria decora</i>	Retrorsine; N-Oxide	$C_{18}H_{25}NO_7$	
Alkaloid from <i>Senecio swaziensis</i> (Compositae)	Swazine	$C_{18}H_{23}NO_6$	
Alkaloid from <i>Senecio triangularis</i> (Compositae)	Triangularine; 2'E-Isomer	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio triangularis</i> and <i>Alkanna tinctoria</i> (Compositae, Boraginaceae)	Triangularine	$C_{18}H_{25}NO_5$	

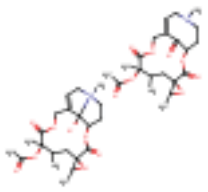
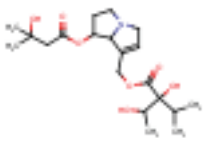
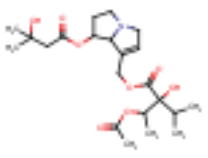
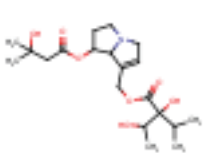
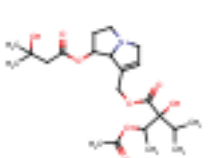
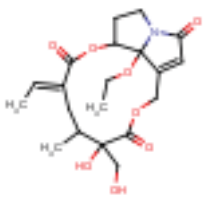
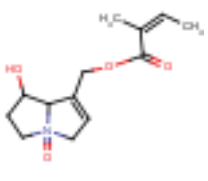
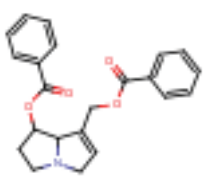
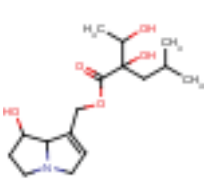
Alkaloid from <i>Senecio usaramoensis</i>	Senecionine; 15 <i>E</i> -Isomer, 12-epimer	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio variabilis</i> and <i>Senecio caudatus</i> . Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7- <i>O</i> -(3-Methyl-2-butenoyl)	$C_{13}H_{19}NO_3$	
Alkaloid from <i>Senecio variabilis</i> and <i>Senecio nemorensis</i> var. <i>fuchsii</i> . Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9- <i>O</i> -(3-Methyl-2-butenoyl)	$C_{13}H_{19}NO_3$	
Alkaloid from <i>Senecio variabilis</i> , <i>Senecio caudatus</i> and <i>Senecio triangularis</i> (Compositae)	Retronecine 9-(2,3-dihydroxy-2-hydroxymethylbutanoate) 7-senecioate; 2'',3''-Dideoxy, 2'',3''-didehydro (Z-)	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio vernalis</i> above-ground parts (Compositae)	Senecivernine	$C_{18}H_{25}NO_5$	
Alkaloid from <i>Senecio vernalis</i> and <i>Senecio procumbens</i>	Senecivernine; <i>N</i> -Oxide	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio vulgaris</i>	Seneciphylline; 12-Epimer, 15 <i>E</i> -isomer, <i>N</i> -oxide	$C_{18}H_{23}NO_6$	
Alkaloid from <i>Senecio vulgaris</i>	5,6,7,7 <i>a</i> -Tetrahydro-7,7 <i>a</i> -dihydroxy-1-(hydroxymethyl)-3 <i>H</i> -pyrrolizin-3-one; (7 <i>R</i> *,7 <i>aR</i> *)-form, Tri-Me ether	$C_{11}H_{17}NO_4$	
Alkaloid from <i>Symphytum asperum</i>	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 7,9-Diangeloyl	$C_{18}H_{25}NO_4$	

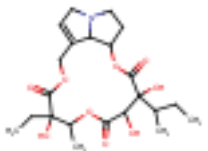
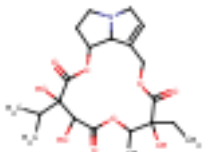
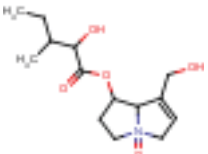
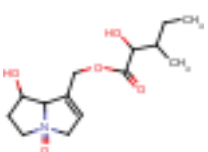
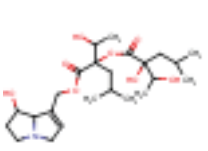
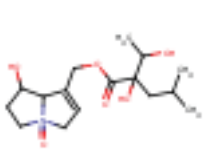
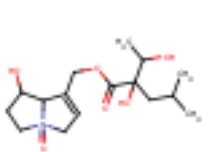
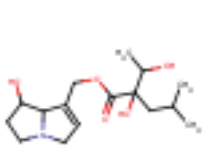
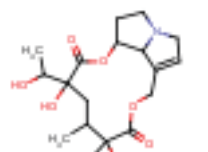
Alkaloid from <i>Symphytum caucasicum</i> and <i>Echium angustifolium</i>	Echiumine; 3'-Epimer, 1'''-hydroxy, <i>N</i> -oxide	$C_{20}H_{31}NO_8$	
Alkaloid from <i>Symphytum orientale</i> (Boraginaceae)	Scorpioidine; Diastereoisomer, <i>N</i> -oxide	$C_{20}H_{31}NO_7$	
Alkaloid from <i>Syneilesis palmata</i> (Compositae)	Syneilesine	$C_{19}H_{29}NO_7$	
Alkaloid from <i>Trichodesma incanum</i> and <i>Heliotropium olgae</i> (Boraginaceae)	Trichodesmine; 13-Deoxy	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Trichodesma incanum</i> , <i>Heliotropium arguzioides</i> , <i>Crotalaria juncea</i> , <i>Crotalaria tetragona</i> and <i>Crotalaria rubiginosa</i> (Boraginaceae, Leguminosae)	Trichodesmine	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Ulugbekia tschimganica</i> (Boraginaceae) (preferred genus name <i>Arnebia</i>)	Lithosenine; 3'-Deoxy, stereoisomer	$C_{20}H_{33}NO_7$	
Alkaloid from aerial parts of <i>Alkanna orientalis</i> . Constit. of the pheromone of <i>Longitarsus exoletus</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9-Angeloyl	$C_{13}H_{19}NO_3$	
Alkaloid from aerial parts of <i>Heliotropium bovei</i> (Boraginaceae)	Europine; <i>O</i> ⁷ -Ac	$C_{18}H_{29}NO_7$	
Alkaloid from aerial parts of <i>Heliotropium hirsutissimum</i> (Boraginaceae)	Heliosupine; 3'-Ac, <i>N</i> -oxide	$C_{22}H_{33}NO_9$	

Alkaloid from aerial parts of <i>Heliotropium hirsutissimum</i> (Boraginaceae)	Lasiocarpine; O ^{3'} -Ac, N-oxide	C ₂₃ H ₃₅ NO ₉	
Alkaloid from aerial parts of <i>Lithospermum officinale</i> (Boraginaceae)	Lithosenine	C ₂₀ H ₃₃ NO ₈	
Alkaloid from aerial parts of <i>Lithospermum officinale</i> (Boraginaceae)	Lithosenine; O ^{3''} -Ac	C ₂₂ H ₃₅ NO ₉	
Alkaloid from aerial parts of <i>Myosotis scorpioides</i>	Echiumine; 2''E-Isomer	C ₂₀ H ₃₁ NO ₆	
Alkaloid from aerial parts of <i>Senecio integrifolius</i> subsp. <i>aucheri</i> (Compositae)	Aucherine	C ₁₇ H ₂₅ NO ₆	
Alkaloid from aerial parts of <i>Senecio selloi</i>	Jaconine; 18-Hydroxy	C ₁₈ H ₂₆ ClNO ₇	
Alkaloid from dried roots of <i>Symphytum officinale</i> and from aerial parts of <i>Myosotis scorpioides</i>	Echiumine; 3'-Epimer, 2''E-isomer	C ₂₀ H ₃₁ NO ₆	
Alkaloid from leaves of <i>Parsonsia laevigata</i> (Apocynaceae)	17-Methylparsonsianidine	C ₂₃ H ₃₅ NO ₉	
Alkaloid from leaves of <i>Parsonsia laevigata</i> (Apocynaceae)	12-Seco-14-deoxyparsonsianine; Me ester	C ₂₂ H ₃₅ NO ₉	

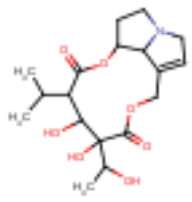
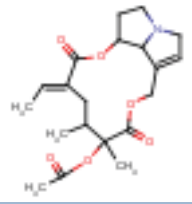
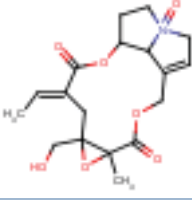
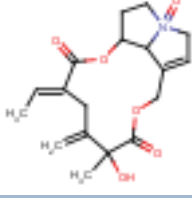
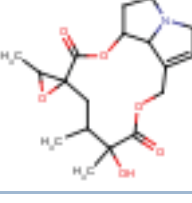
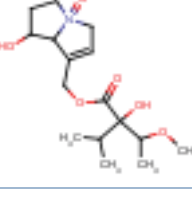
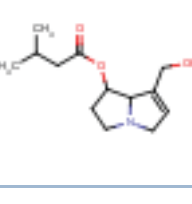
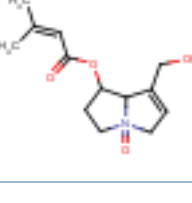
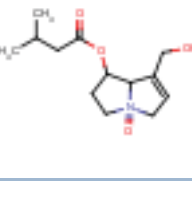
Alkaloid from leaves of <i>Parsonsia laevigata</i> (Apocynaceae)	Parsonsianine; 16-Deoxy	$C_{21}H_{31}NO_8$	
Alkaloid from leaves of <i>Parsonsia laevigata</i> (Apocynaceae)	Parsonsianidine; 14-Deoxy	$C_{22}H_{33}NO_8$	
Alkaloid from leaves of <i>Senecio mulgediifolius</i> (Compositae)	Nemorensine; 11,14-Diepimer, 1,2-didehydro, N-oxide	$C_{18}H_{25}NO_6$	
Alkaloid from leaves of <i>Symphytum uplandicum</i>	Intermedine; 7-Ac	$C_{17}H_{27}NO_6$	
Alkaloid from leaves of <i>Symphytum uplandicum</i> , <i>Anchusa officinalis</i> and <i>Anchusa menziesii</i>	Intermedine; 3'-Epimer, 7-Ac	$C_{17}H_{27}NO_6$	
Alkaloid from leaves of <i>Symphytum x uplandicum</i> (hybrid of <i>Symphytum officinale</i> and <i>Symphytum asperum</i>)	Echiumine; 3'-Epimer	$C_{20}H_{31}NO_6$	
Alkaloid from many <i>Senecio</i> spp., <i>Brachyglottis repanda</i> , <i>Emilia sonchifolia</i> , <i>Erechtites hieracifolia</i> , <i>Petasites hybridus</i> and other Compositae. Large amts. obtainable from <i>Senecio triangularis</i> ; also obt. from <i>Castilleja rhexifolia</i> (Scrophulariaceae)	Senecionine	$C_{18}H_{25}NO_5$	
Alkaloid from numerous <i>Senecio</i> and <i>Crotalaria</i> spp., also <i>Erechtites hieracifolia</i> and <i>Erechtites quadridentata</i> (Compositae, Leguminosae)	Seneciphylline	$C_{18}H_{23}NO_5$	
Alkaloid from of <i>Cacalia yatabei</i> and <i>Ligularia duciformis</i>	Bisline; 15-Deoxy	$C_{18}H_{27}NO_5$	

Alkaloid from root of <i>Paris verticillata</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9- <i>O</i> -(2 <i>R</i> ,3 <i>R</i> -Dihydroxy-2-isopropylbutanoyl), <i>N</i> -oxide	$C_{15}H_{25}NO_6$	
Alkaloid from root of <i>Paris verticillata</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 9- <i>O</i> -(2 <i>R</i> ,3 <i>S</i> -Dihydroxy-2-isopropylbutanoyl), <i>N</i> -oxide	$C_{15}H_{25}NO_6$	
Alkaloid from root of <i>Paris verticillata</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 9- <i>O</i> -(2 <i>R</i> ,3 <i>R</i> -Dihydroxy-2-isopropylbutanoyl), <i>N</i> -oxide	$C_{15}H_{25}NO_6$	
Alkaloid from roots and aerial parts of <i>Senecio cannabifolius</i> (Compositae)	Seneciocannabine	$C_{18}H_{23}NO_7$	
Alkaloid from roots of <i>Heliotropium curassavicum</i> (2 varieties)	Intermedine; 3'-Epimer, 3'- <i>O</i> -(3-methylbutanoyl)	$C_{20}H_{33}NO_6$	
Alkaloid from roots of <i>Heliotropium curassavicum</i> var. <i>curassavicum</i> (Boraginaceae)	Indicine; 2'- or 3'-Epimer, 3'-Ac	$C_{17}H_{27}NO_6$	
Alkaloid from roots of <i>Lithospermum erythrorhizon</i>	Echiumine; 2'' <i>E</i> -Isomer, 1'''-hydroxy	$C_{20}H_{31}NO_7$	
Alkaloid from roots of <i>Symphytum officinale</i> , <i>Symphytum asperum</i> and <i>Symphytum x uplandicum</i>	Intermedine; 3'-Epimer, 7- <i>O</i> -(3-methyl-2-butenoyl)	$C_{20}H_{31}NO_6$	
Alkaloid from seeds of <i>Crotalaria anagyroides</i> (Leguminosae)	Senecionine; <i>N</i> -Oxide	$C_{18}H_{25}NO_6$	

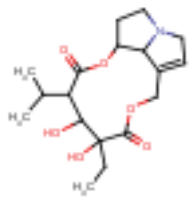
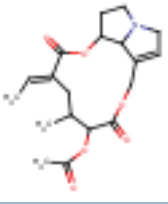
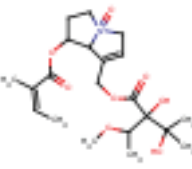
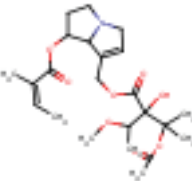
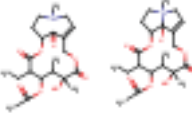
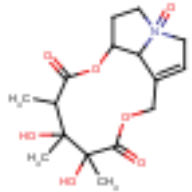
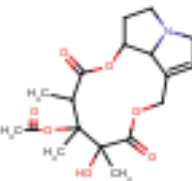
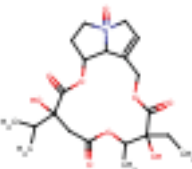
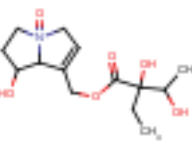
Alkaloid from the aerial parts and roots of <i>Ligularia dentata</i> (Compositae)	Ligularizine	$C_{21}H_{29}NO_8$	
Alkaloid from the aerial parts of <i>Lithospermum canescens</i>	Echinatine; 7-O-(3-Hydroxy-3-methylbutanoyl)	$C_{20}H_{33}NO_7$	
Alkaloid from the aerial parts of <i>Lithospermum canescens</i>	Echinatine; 3'-Epimer, 7-O-(3-hydroxy-3-methylbutanoyl), 3'-Ac	$C_{22}H_{35}NO_8$	
Alkaloid from the aerial parts of <i>Lithospermum canescens</i>	Echinatine; 3'-Epimer, 7-O-(3-hydroxy-3-methylbutanoyl)	$C_{20}H_{33}NO_7$	
Alkaloid from the aerial parts of <i>Lithospermum canescens</i>	Echinatine; 7-O-(3-Hydroxy-3-methylbutanoyl), 3'-Ac	$C_{22}H_{35}NO_8$	
Alkaloid from the aerial parts of <i>Senecio grisebachii</i> (Compositae)	8-Ethoxy-3-oxo-1,2-dehydroretorsine	$C_{20}H_{27}NO_8$	
Alkaloid from the bark of <i>Bhesa archboldiana</i> (Celastraceae) and from <i>Heliotropium bursiferum</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 9-Angeloyl, N-oxide	$C_{13}H_{19}NO_4$	
Alkaloid from the flowers of <i>Caccinia glauca</i> (Boraginaceae)	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 7,9-Dibenzoyl	$C_{22}H_{21}NO_4$	
Alkaloid from the leaves of <i>Anchusa strigosa</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7S,8R)-form, 9-O-[2S-Hydroxy-2-(1S-hydroxyethyl)-4-methylpentanoyl]	$C_{16}H_{27}NO_5$	

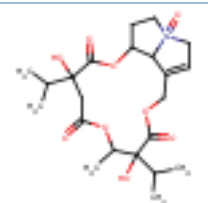
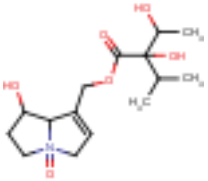
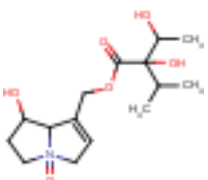
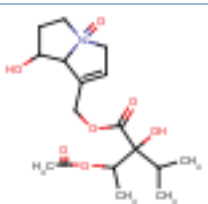
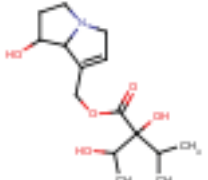
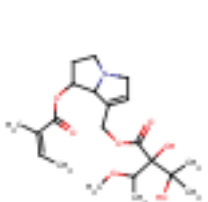
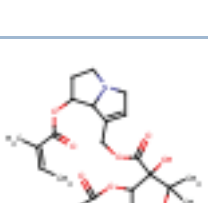
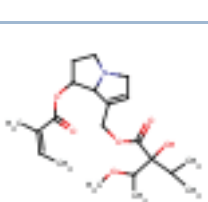
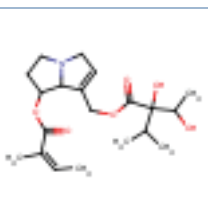
Alkaloid from the leaves of <i>Parsonsia laevigata</i> (Apocynaceae)	Parsonsianidine	$C_{22}H_{33}NO_9$	
Alkaloid from the leaves of <i>Parsonsia laevigata</i> (Apocynaceae)	Parsonsianine	$C_{21}H_{31}NO_9$	
Alkaloid from the moth <i>Cretonotos transiens</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 7-O-(2S-Hydroxy-3S-methylpentanoyl), N-oxide	$C_{14}H_{23}NO_5$	
Alkaloid from the moth <i>Cretonotos transiens</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 9-O-(2S-Hydroxy-3S-methylpentanoyl), N-oxide	$C_{14}H_{23}NO_5$	
Alkaloid from the roots of <i>Anchusa strigosa</i>	Anchustrigosine	$C_{24}H_{41}NO_8$	
Alkaloid from the roots of <i>Anchusa strigosa</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 9-O-[2S-Hydroxy-2-(1S-hydroxyethyl)-4-methylpentanoyl], N-oxide	$C_{16}H_{27}NO_6$	
Alkaloid from the roots of <i>Anchusa strigosa</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 9-O-[2S-Hydroxy-2-(1R-hydroxyethyl)-4-methylpentanoyl], N-oxide	$C_{16}H_{27}NO_6$	
Alkaloid from the roots of <i>Anchusa strigosa</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 9-O-[2S-Hydroxy-2-(1S-hydroxyethyl)-4-methylpentanoyl]	$C_{16}H_{27}NO_5$	
Alkaloid from the roots of <i>Cirsium wallichii</i> (Compositae)	Jacoline; O^{12} -Ac	$C_{20}H_{29}NO_8$	

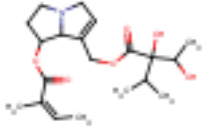
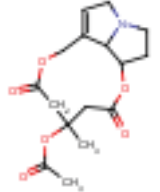
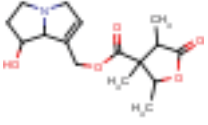
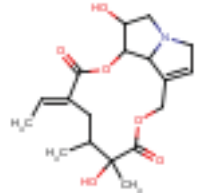
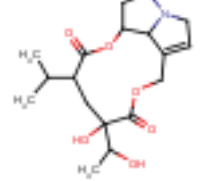
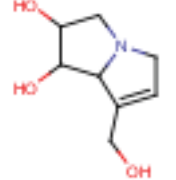
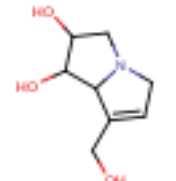
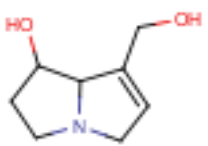
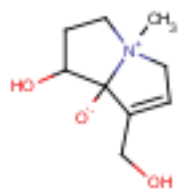
Alkaloid from the roots of <i>Cynoglossum furcatum</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 9- <i>O</i> -(2 <i>R</i> -Hydroxypropanoyl)		
Alkaloid from the roots of <i>Cynoglossum furcatum</i>	Viridinatine	$C_{22}H_{37}NO_8$	
Alkaloid from the roots of <i>Heliotropium indicum</i>	Helindicine	$C_{15}H_{23}NO_4$	
Alkaloid from the roots of <i>Ligularia achyroticha</i>	Ligulachyroine A	$C_{20}H_{27}NO_9$	
Alkaloid from the roots of <i>Ligularia lankongensis</i>	Lankongensisine A	$C_{18}H_{27}NO_5$	
Alkaloid from the roots of <i>Ligularia lankongensis</i>	Lankongensisine B	$C_{18}H_{27}NO_5$	
Alkaloid from the roots of <i>Ligularia tsangchanensis</i>	Bisline; 15-Deoxy, 12-Ac	$C_{20}H_{29}NO_6$	
Alkaloid from the roots of <i>Ligularia tsangchanensis</i>	Bisline; 15-Deoxy, 12-Ac, <i>N</i> -oxide	$C_{20}H_{29}NO_7$	
Alkaloid from the roots of <i>Senecio uspalatensis</i> (Compositae)	Anacrotine; 6-Epimer		

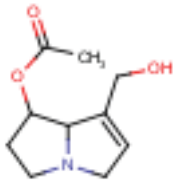
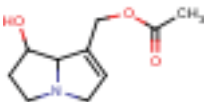
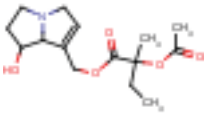
Alkaloid from the seed of <i>Crotalaria axillaris</i> . Major alkaloid from <i>Crotalaria scassellatii</i> (Leguminosae)	Axillarine	$C_{18}H_{27}NO_7$	
Alkaloid from the seeds of <i>Crotalaria naragutensis</i> (Leguminosae)	Senecionine; 15E-Isomer, O-Ac	$C_{20}H_{27}NO_6$	
Alkaloid from whole plants of <i>Senecio persoonii</i> (Compositae)	Erucifoline; N-Oxide	$C_{18}H_{23}NO_7$	
Alkaloid from whole plants of <i>Senecio persoonii</i> (Compositae)	Seneciphylline; N-Oxide	$C_{18}H_{23}NO_6$	
Alkaloid of <i>Senecio jacobaea</i> , <i>Senecio brasiliensis</i> and <i>Senecio cineraria</i> (Compositae)	Jacobine	$C_{18}H_{25}NO_6$	
Alkaloid present in <i>Heliotropium europaeum</i> (Boraginaceae)	Heliotrine; N-Oxide	$C_{16}H_{27}NO_6$	
Constit. of <i>Crotalaria scassellatii</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 7-O-(3-Methylbutanoyl)	$C_{13}H_{21}NO_3$	
Constit. of <i>Crotalaria scassellatii</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 7-O-(3-Methyl-2-butenoyl), N-oxide	$C_{13}H_{19}NO_4$	
Constit. of <i>Crotalaria scassellatii</i>	2,3,5,7a-Tetrahydro-1-hydroxy-1H-pyrrolizine-7-methanol; (7R,8R)-form, 7-O-(3-Methylbutanoyl), N-oxide	$C_{13}H_{21}NO_4$	

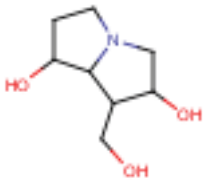
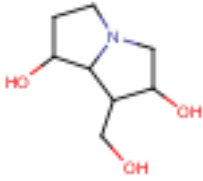
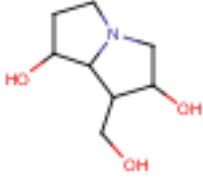
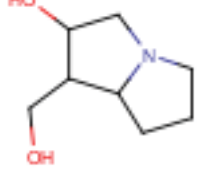
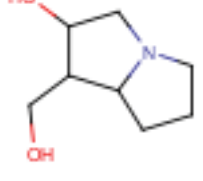
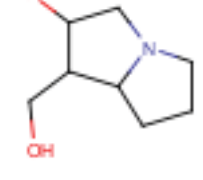
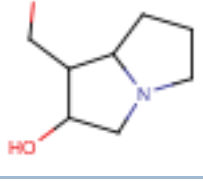
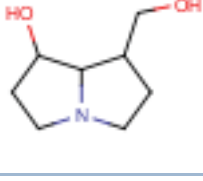
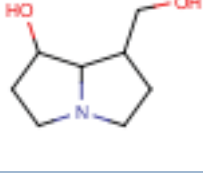
Constit. of <i>Crotalaria</i> spp. (Leguminosae)	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9-Me ether	C ₉ H ₁₅ NO ₂	
Constit. of <i>Cynoglossum latifolium</i> and <i>Senecio triangularis</i> . Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7-Angeloyl	C ₁₃ H ₁₉ NO ₃	
Constit. of <i>Heliotropium indicum</i> (Boraginaceae) and twigs of <i>Messerschmidia argentea</i>	Indicine; <i>N</i> -Oxide	C ₁₅ H ₂₅ NO ₆	
Constit. of <i>Senecio scleratus</i> and <i>Senecio latifolius</i> (Compositae)	Sceleratine	C ₁₈ H ₂₇ NO ₇	
Constit. of leaves and inflorescences of <i>Senecio jacobacea</i> . Also present in inflorescences of <i>Senecio erucifolius</i> (Compositae)	Erucifoline; Ac	C ₂₀ H ₂₅ NO ₇	
Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9-Tigloyl	C ₁₃ H ₁₉ NO ₃	
Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 9-Angeloyl	C ₁₃ H ₁₉ NO ₃	
Constit. of the pheromones of <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form, 7-O-(3-Methyl-2-butenoyl)	C ₁₃ H ₁₉ NO ₃	
Found in <i>Heliotropium ellipticum</i> , <i>Heliotropium eichwaldii</i> and <i>Heliotropium lasiocarpum</i> . Hydrol. prod. of many other pyrrolizidine alkaloids. Constit. of the pheromones of the flea beetles <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>R</i>)-form	C ₈ H ₁₃ NO ₂	

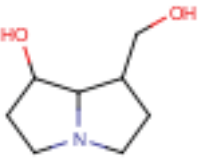
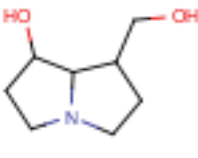
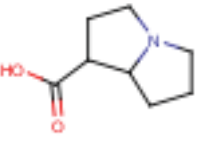
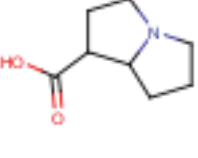
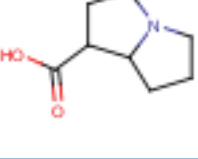
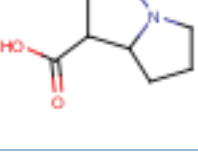
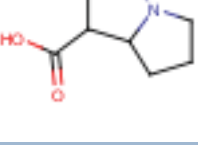
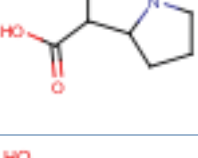
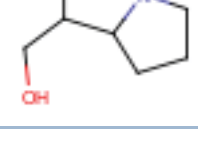
From <i>Crotalaria axillaris</i> and <i>Crotalaria scassellatii</i> (Leguminosae)	Axillarine; 1'-Deoxy	$C_{18}H_{27}NO_6$	
From <i>Crotalaria striata</i> (Leguminosae)	Nilgirine; Ac	$C_{19}H_{25}NO_6$	
From <i>Heliotropium europaeum</i> (Boraginaceae)	Lasiocarpine; N-Oxide	$C_{21}H_{33}NO_8$	
From <i>Heliotropium europaeum</i> (Boraginaceae)	Lasiocarpine; O ^{3'} -Ac	$C_{23}H_{35}NO_8$	
From <i>Syneilesis palmata</i> (Compositae)	Syneilesine; O ¹⁴ -Ac	$C_{21}H_{31}NO_8$	
Isol. from <i>Crotalaria sagittalis</i> (Leguminosae)	Monocrotaline; N-Oxide	$C_{16}H_{23}NO_7$	
Isol. from <i>Crotalaria spectabilis</i>	Monocrotaline; O ¹³ -Ac	$C_{18}H_{25}NO_7$	
Isol. from adult bodies of the Apocynaceae-feeding danaine butterfly <i>Idea leuconoe</i>	Parsonsianine; 16-Deoxy, N-oxide	$C_{21}H_{31}NO_9$	
Isol. from adult bodies of the Apocynaceae-feeding danaine butterfly <i>Idea leuconoe</i>	Ideamine A; N-Oxide	$C_{14}H_{23}NO_6$	

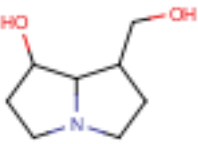
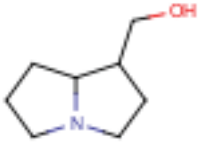
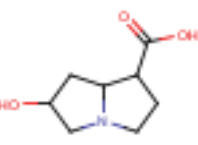
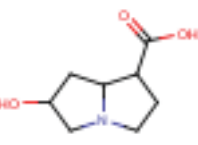
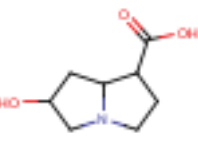
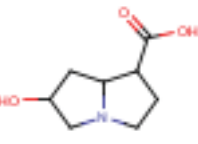
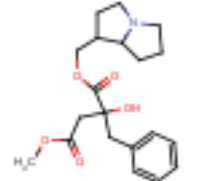
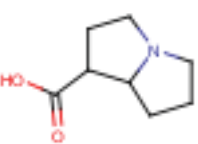
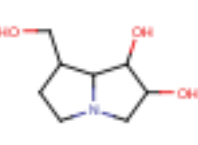
Isol. from adult bodies of the Apocynaceae-feeding danaine butterfly <i>Idea leuconoe</i>	Parsonsine; <i>N</i> -Oxide	$C_{22}H_{33}NO_9$	
Isol. from root of <i>Paris verticillata</i>	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>S</i>)-form, 9- <i>O</i> -(2 <i>R</i> ,3 <i>S</i> -Dihydroxy-2-isopropylbutanoyl), <i>N</i> -oxide	$C_{15}H_{25}NO_6$	
Isol. from root of <i>Paris verticillata</i>	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>S</i> ,8 <i>S</i>)-form, 9- <i>O</i> -(2 <i>R</i> ,3 <i>R</i> -Dihydroxy-2-isopropylbutanoyl), <i>N</i> -oxide	$C_{15}H_{25}NO_6$	
Isol. from twigs of <i>Messerschmidia argentea</i>	Indicine; 3'-Ac, <i>N</i> -oxide	$C_{17}H_{27}NO_7$	
Main alkaloid from <i>Amsinckia lycopsoidea</i> and <i>Amsinckia hispida</i>	Intermedine	$C_{15}H_{25}NO_5$	
Major alkaloid from <i>Heliotropium europaeum</i> , <i>Heliotropium lasiocarpum</i> , <i>Heliotropium arbainense</i> , <i>Heliotropium curassavicum</i> , <i>Heliotropium eichwaldii</i> , <i>Heliotropium indicum</i> and other <i>Heliotropium</i> spp. (Boraginaceae)	Lasiocarpine	$C_{21}H_{33}NO_7$	
Minor alkaloid from <i>Cynoglossum officinale</i> and from <i>Myosotis sylvatica</i> (Boraginaceae)	Heliosupine; 3'-Ac	$C_{22}H_{33}NO_8$	
Minor alkaloid from <i>Heliotropium eichwaldii</i> (Boraginaceae)	Lasiocarpine; 3'-Deoxy	$C_{21}H_{33}NO_6$	
Minor alkaloid from <i>Heliotropium supinum</i>	Echiumine; 7-Epimer	$C_{20}H_{31}NO_6$	

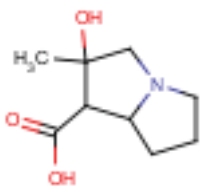
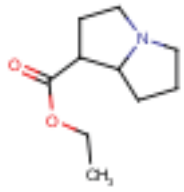
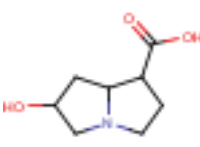
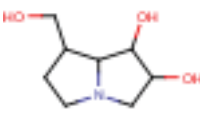
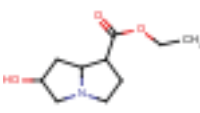
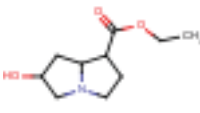
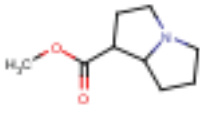
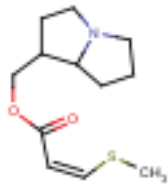
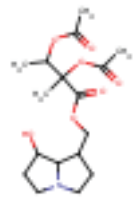
Minor alkaloid from <i>Heliotropium supinum</i>	Echiumine; 3',7-Diepimer	$C_{20}H_{31}NO_6$	
Minor alkaloid from leaves of <i>Crotalaria lachnosema</i> (Leguminosae)	Dicrotaline; Ac	$C_{16}H_{21}NO_6$	
Minor alkaloid from seeds of <i>Crotalaria assamica</i> (Leguminosae)	Assamicadine	$C_{16}H_{23}NO_5$	
Minor alkaloid from seeds of <i>Crotalaria capensis</i> (Leguminosae)	Anacrotine; (E)-Isomer	$C_{18}H_{25}NO_6$	
Minor alkaloid from seeds of <i>Crotalaria scassellatii</i> (Leguminosae)	Axillarine; 12-Deoxy	$C_{18}H_{27}NO_6$	
Necine base from Anacrotine and Madurensine	Crotanecine	$C_8H_{13}NO_3$	
Necine base from GNP10	Crotanecine; 2-Epimer	$C_8H_{13}NO_3$	
Necine base from numerous pyrrolizidine alkaloids. Trace constit. in seedlings of <i>Crotalaria scassellatii</i> . Constit. of the pheromones of the flea beetles <i>Longitarsus</i> spp.	2,3,5,7a-Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form	$C_8H_{13}NO_2$	
Necine base from several pyrrolizidine alkaloids	Otonecine	$C_9H_{15}NO_3$	

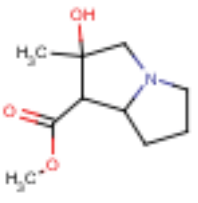
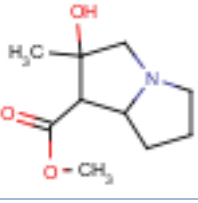
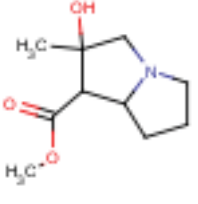
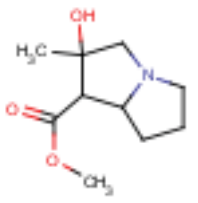
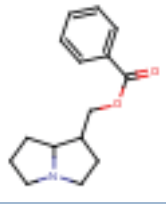
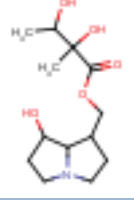
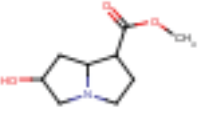
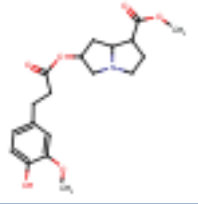
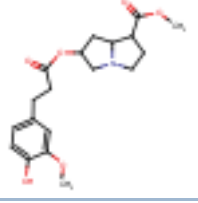
Pheromone of <i>Longitarsus exoletus</i>	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 7-Ac	C ₁₀ H ₁₅ NO ₃	
Pheromone of <i>Longitarsus exoletus</i>	2,3,5,7 <i>a</i> -Tetrahydro-1-hydroxy-1 <i>H</i> -pyrrolizine-7-methanol; (7 <i>R</i> ,8 <i>R</i>)-form, 9-Ac	C ₁₀ H ₁₅ NO ₃	
``Metabolite'' found in some Arctiid moths which feed as larvae on plants containing pyrrolizidine alkaloids	Callimorphine	C ₁₅ H ₂₃ NO ₅	

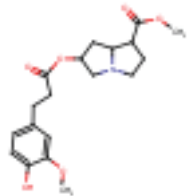
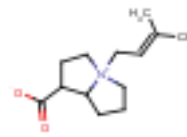
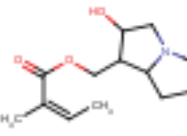
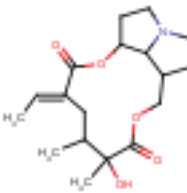
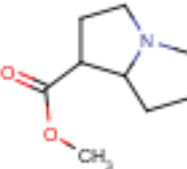
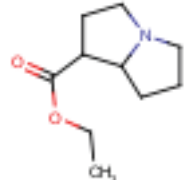
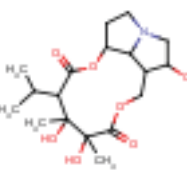
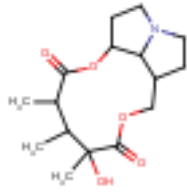
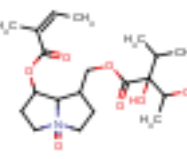
Biological Source	Chemical Name	Molecular Formula	Structure
	2,7-Dihydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>R</i> ,8 <i>R</i>)-form	$C_8H_{15}NO_3$	
	2,7-Dihydroxy-1-hydroxymethylpyrrolizidine; (1 <i>R</i> ,2 <i>S</i> ,7 <i>R</i> ,8 <i>R</i>)-form	$C_8H_{15}NO_3$	
	2,7-Dihydroxy-1-hydroxymethylpyrrolizidine	$C_8H_{15}NO_3$	
	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aR</i>)-form	$C_8H_{15}NO_2$	
	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>R</i> ,2 <i>R</i> ,7 <i>aS</i>)-form	$C_8H_{15}NO_2$	
	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form	$C_8H_{15}NO_2$	
	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>R</i> ,2 <i>S</i> ,7 <i>aS</i>)-form	$C_8H_{15}NO_2$	
	Hexahydro-7-hydroxy-1 <i>H</i> - pyrrolizine-1-methanol; (1 <i>R</i> ,7 <i>R</i> ,7 <i>aR</i>)-form	$C_8H_{15}NO_2$	
	Hexahydro-7-hydroxy-1 <i>H</i> - pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aR</i>)-form	$C_8H_{15}NO_2$	

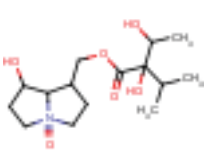
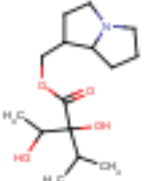
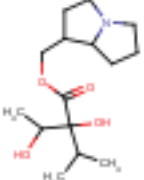
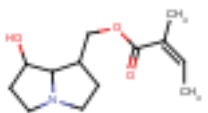
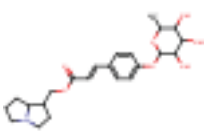
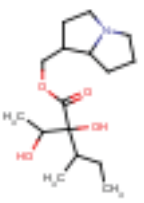
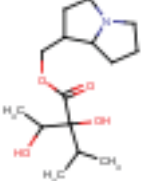
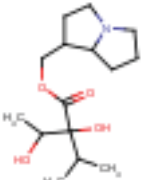
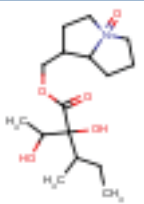
	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>S</i> ,7 <i>aR</i>)-form	C ₈ H ₁₅ NO ₂	
	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aS</i>)-form	C ₈ H ₁₅ NO ₂	
	1-Pyrrolizidinecarboxylic acid; (1 <i>R</i> ,7 <i>aR</i>)-form	C ₈ H ₁₃ NO ₂	
	1-Pyrrolizidinecarboxylic acid; (1 <i>R</i> ,7 <i>aS</i>)-form	C ₈ H ₁₃ NO ₂	
	1-Pyrrolizidinecarboxylic acid; (1 <i>S</i> ,7 <i>aR</i>)-form	C ₈ H ₁₃ NO ₂	
	1-Pyrrolizidinecarboxylic acid; (1 <i>S</i> ,7 <i>aS</i>)-form	C ₈ H ₁₃ NO ₂	
	1-Pyrrolizidinecarboxylic acid; (1 <i>RS</i> ,7 <i>aSR</i>)-form	C ₈ H ₁₃ NO ₂	
	1-Pyrrolizidinecarboxylic acid; (1 <i>RS</i> ,7 <i>aRS</i>)-form	C ₈ H ₁₃ NO ₂	
	2-Hydroxy-1-hydroxymethylpyrrolizidine	C ₈ H ₁₅ NO ₂	

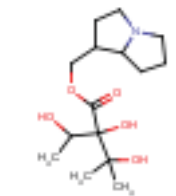
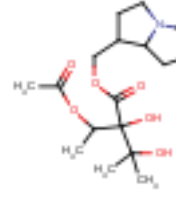
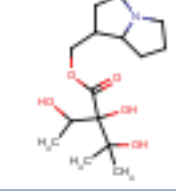
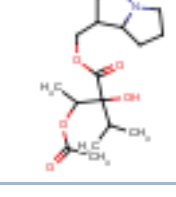
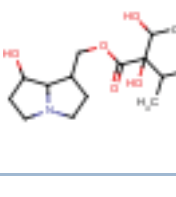
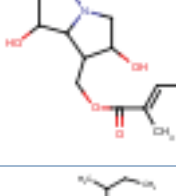
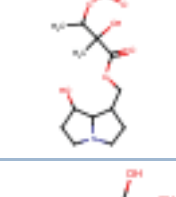
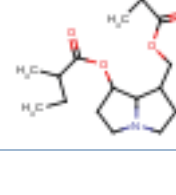
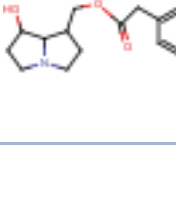
	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol	$C_8H_{15}NO_2$	
	1-Hydroxymethylpyrrolizidine	$C_8H_{15}NO$	
	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>R</i> ,6 <i>R</i> ,7 <i>aR</i>)-form	$C_8H_{13}NO_3$	
	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>R</i> ,6 <i>S</i> ,7 <i>aR</i>)-form	$C_8H_{13}NO_3$	
	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>S</i> ,6 <i>S</i> ,7 <i>aR</i>)-form	$C_8H_{13}NO_3$	
	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>S</i> ,6 <i>S</i> ,7 <i>aS</i>)-form	$C_8H_{13}NO_3$	
	Phalaenopsines	$C_{20}H_{27}NO_5$	
	1-Pyrrolizidinecarboxylic acid	$C_8H_{13}NO_2$	
	1,2-Dihydroxy-7-hydroxymethylpyrrolizidine; (1 <i>R</i> *,2 <i>R</i> *,7 <i>R</i> *,7 <i>aR</i> *)-form	$C_8H_{15}NO_3$	

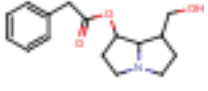
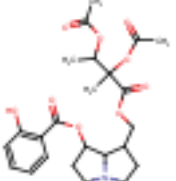
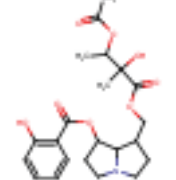
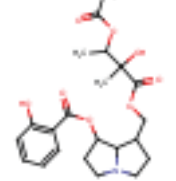
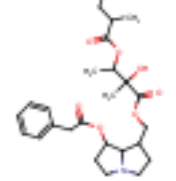
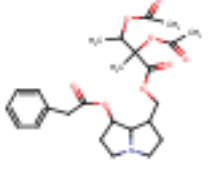
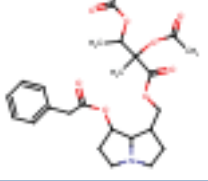
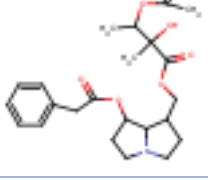
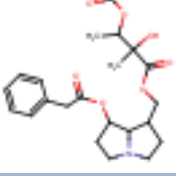
	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid	C ₉ H ₁₅ NO ₃	
	1-Pyrrolizidinecarboxylic acid; (1 <i>RS</i> ,7 <i>aRS</i>)-form, Et ester	C ₁₀ H ₁₇ NO ₂	
	6-Hydroxy-1-pyrrolizidinecarboxylic acid	C ₈ H ₁₃ NO ₃	
	1,2-Dihydroxy-7-hydroxymethylpyrrolizidine	C ₈ H ₁₅ NO ₃	
	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>R</i> ,6 <i>R</i> ,7 <i>aR</i>)-form, Et ester	C ₁₀ H ₁₇ NO ₃	
	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>S</i> ,6 <i>S</i> ,7 <i>aS</i>)-form, Et ester	C ₁₀ H ₁₇ NO ₃	
	1-Pyrrolizidinecarboxylic acid; (1 <i>S</i> ,7 <i>aS</i>)-form, Me ester	C ₉ H ₁₅ NO ₂	
A major alkaloid from the leaves of <i>Planchonella thyrsoides</i> (preferred genus name <i>Pouteria</i>) and <i>Planchonella anteridifera</i> (Sapotaceae)	Planchonelline	C ₁₂ H ₁₉ NO ₂ S	
Alkaloid <i>Ipomoea hederifolia</i> (Convolvulaceae)	Ipanguline D ₃ ; 2'',3''-Di-Ac	C ₁₇ H ₂₇ NO ₇	

Alkaloid artifact from <i>Echinacea purpurea</i> , <i>Echinacea angustifolia</i> , <i>Arnica montana</i> , <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i> , resulting from the use of MeOH during isol. Also isol. from <i>Tussilago farfara</i> (coltsfoot)	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>S</i> ,2 <i>S</i> ,7 <i>aS</i>)-form, Me ester		
Alkaloid artifact from <i>Tussilago farfara</i> (coltsfoot), <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i> , resulting from the use of MeOH during isol.	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>R</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, Me ester	$C_{10}H_{17}NO_3$	
Alkaloid artifact from <i>Tussilago farfara</i> (coltsfoot), <i>Echinacea angustifolia</i> , <i>Arnica montana</i> , <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i> , resulting from the use of MeOH during isol.	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, Me ester	$C_{10}H_{17}NO_3$	
Alkaloid artifact from <i>Tussilago farfara</i> (coltsfoot), <i>Arnica montana</i> , <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i> , resulting from the use of MeOH during isol.	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>R</i> ,2 <i>S</i> ,7 <i>aS</i>)-form, Me ester	$C_{10}H_{17}NO_3$	
Alkaloid detected in <i>Planchonella thyrsoidea</i> and <i>Planchonella anteridifera</i> (Sapotaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>S</i> ,7 <i>aR</i>)-form, Benzoyl	$C_{15}H_{19}NO_2$	
Alkaloid from <i>Ipomoea hederifolia</i> (Convolvulaceae)	Ipanguline D ₃	$C_{13}H_{23}NO_5$	
Alkaloid from <i>Amphorogyne spicata</i>	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>R</i> ,6 <i>R</i> ,7 <i>aR</i>)-form, Me ester	$C_9H_{15}NO_3$	
Alkaloid from <i>Amphorogyne spicata</i>	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>S</i> ,6 <i>S</i> ,7 <i>aR</i>)-form, 6-O-[3-(4-Hydroxy-3-methoxyphenyl)propanoyl], Me ester	$C_{19}H_{25}NO_6$	
Alkaloid from <i>Amphorogyne spicata</i>	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>R</i> ,6 <i>S</i> ,7 <i>aR</i>)-form, 6-O-[3-(4-Hydroxy-3-methoxyphenyl)propanoyl], Me ester	$C_{19}H_{25}NO_6$	

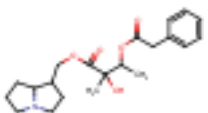
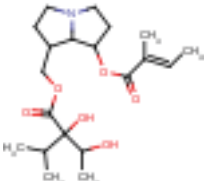
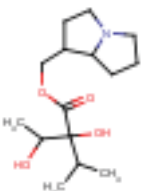
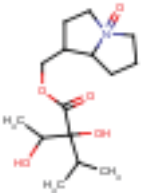
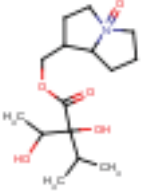
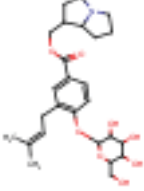
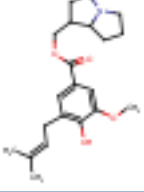
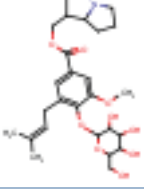
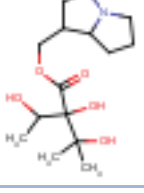
Alkaloid from <i>Amphorogyne spicata</i>	6-Hydroxy-1-pyrrolizidinecarboxylic acid; (1 <i>R</i> ,6 <i>R</i> ,7 <i>aR</i>)-form, 6- <i>O</i> -[3-(4-Hydroxy-3-methoxyphenyl)propanoyl], Me ester	$C_{19}H_{25}NO_6$	
Alkaloid from <i>Anodendron affine</i> (Apocynaceae)	Anodendrine	$C_{13}H_{21}NO_2$	
Alkaloid from <i>Brachyglottis hectori</i>	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, <i>O</i> ^{1'} -Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Cacalia hastata</i> and <i>Cacalia robusta</i> (Compositae)	Hastacine	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Chysis bractescens</i> (Orchidaceae)	1-Pyrrolizidinecarboxylic acid; (1 <i>R</i> ,7 <i>aR</i>)-form, Me ester	$C_9H_{15}NO_2$	
Alkaloid from <i>Chysis bractescens</i> (Orchidaceae)	1-Pyrrolizidinecarboxylic acid; (1 <i>R</i> ,7 <i>aR</i>)-form, Et ester	$C_{10}H_{17}NO_2$	
Alkaloid from <i>Crotalaria albida</i> (Leguminosae)	Croalbidine	$C_{18}H_{29}NO_7$	
Alkaloid from <i>Crotalaria retusa</i> and <i>Crotalaria spectabilis</i> (Leguminosae)	Retusine	$C_{16}H_{25}NO_5$	
Alkaloid from <i>Cryptantha crassipes</i>	Echiumine; 1ξ,2-Dihydro, <i>N</i> -oxide	$C_{20}H_{33}NO_7$	

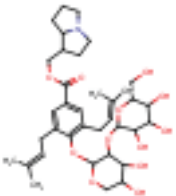
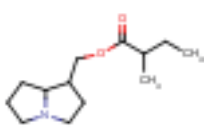
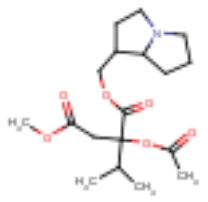
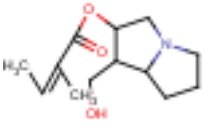
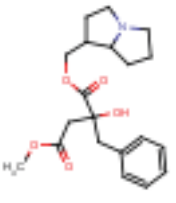
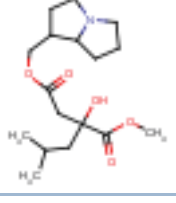
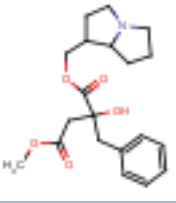
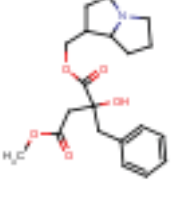
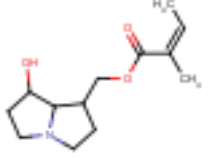
Alkaloid from <i>Cryptantha crassipes</i>	Intermedine; 3'-Epimer, 1ξ,2-dihydro, <i>N</i> -oxide	$C_{15}H_{27}NO_6$	
Alkaloid from <i>Cynoglossum australe</i> (dried plants) (Boraginaceae)	Trachelanthamine; 3',8-Diepimer	$C_{15}H_{27}NO_4$	
Alkaloid from <i>Cynoglossum viridiflorum</i> , <i>Lindelofia olgae</i> , <i>Lindelofia pterocarpa</i> , <i>Lindelofia stylosa</i> , <i>Paracaryum himalayense</i> , <i>Symphytum officinale</i> and <i>Trachelanthus hissaricus</i> (Boraginaceae)	Trachelanthamine; 3'-Epimer	$C_{15}H_{27}NO_4$	
Alkaloid from <i>Farfugium japonicum</i> (Compositae)	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>S</i> ,7 <i>aS</i>)-form, 1'-Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Festuca arundinacea</i> and <i>Lolium perenne</i>	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aR</i>)-form, O-[α- <i>L</i> -Rhamnopyranosyl-(→4)-4-hydroxy- <i>Z</i> -cinnamoyl]	$C_{23}H_{31}NO_7$	
Alkaloid from <i>Heliotropium curassavicum</i> (Boraginaceae)	Curassavine	$C_{16}H_{29}NO_4$	
Alkaloid from <i>Heliotropium curassavicum</i> (Boraginaceae)	Trachelanthamine; 2',3'-Diepimer	$C_{15}H_{27}NO_4$	
Alkaloid from <i>Heliotropium curassavicum</i> (Boraginaceae)	Trachelanthamine; 2'-Epimer	$C_{15}H_{27}NO_4$	
Alkaloid from <i>Heliotropium curassavicum</i> (Boraginaceae)	Curassavine; <i>N</i> -Oxide	$C_{16}H_{29}NO_5$	

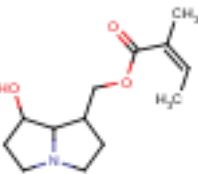
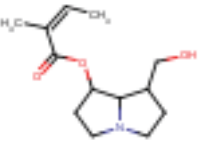
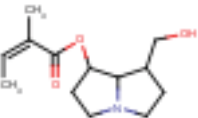
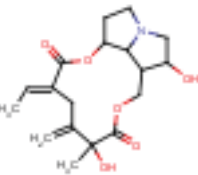
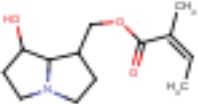
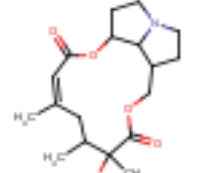
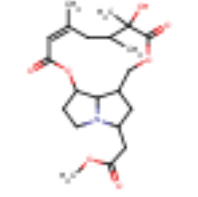
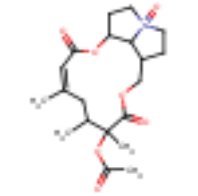
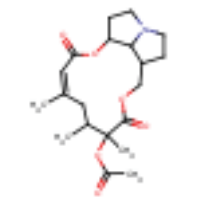
Alkaloid from <i>Heliotropium floridum</i> (Boraginaceae)	Floridimine	$C_{15}H_{27}NO_5$	
Alkaloid from <i>Heliotropium floridum</i> (Boraginaceae)	Floridimine; 3'-Ac	$C_{17}H_{29}NO_6$	
Alkaloid from <i>Heliotropium floridum</i> (Boraginaceae)	Floridimine; 2'-Epimer		
Alkaloid from <i>Heliotropium floridum</i> (Boraginaceae)	Trachelanthamine; 3'-Ac	$C_{17}H_{29}NO_5$	
Alkaloid from <i>Heliotropium megalanthum</i>	Intermedine; 1S,2-Dihydro	$C_{15}H_{27}NO_5$	
Alkaloid from <i>Heliotropium ovalifolium</i> (Boraginaceae)	2,7-Dihydroxy-1-hydroxymethylpyrrolizidine; (1R,2S,7R,8R)-form, O ⁹ -Angeloyl	$C_{13}H_{21}NO_4$	
Alkaloid from <i>Ipomoea cristulata</i> (Convolvulaceae)	Ipanguline D ₃ ; 3''-(2-Methylbutanoyl)	$C_{18}H_{31}NO_6$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7-O-(2-Methylbutanoyl)	$C_{18}H_{31}NO_6$	
Alkaloid from <i>Ipomoea hederifolia</i>	Hexahydro-7-hydroxy-1H-pyrrolizine-1-methanol; (1S,7R,7aR)-form, 1'-O-(Phenylacetyl)	$C_{16}H_{21}NO_3$	

Alkaloid from <i>Ipomoea hederifolia</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 7- <i>O</i> -(Phenylacetyl)	$C_{16}H_{21}NO_3$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7- <i>O</i> -(2-Hydroxybenzoyl), 2'',3''-di-Ac	$C_{24}H_{31}NO_9$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 2''-Epimer, 7- <i>O</i> -(2-hydroxybenzoyl), 3''-Ac	$C_{22}H_{29}NO_8$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7- <i>O</i> -(2-Hydroxybenzoyl), 3''-Ac	$C_{22}H_{29}NO_8$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7- <i>O</i> -(Phenylacetyl), 3''-(2-methylbutanoyl)	$C_{26}H_{37}NO_7$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 2''-Epimer, 7- <i>O</i> -(phenylacetyl), 2'',3''-di-Ac	$C_{25}H_{33}NO_8$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7- <i>O</i> -(Phenylacetyl), 2'',3''-di-Ac	$C_{25}H_{33}NO_8$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 2''-Epimer, 7- <i>O</i> -(phenylacetyl), 3''-Ac	$C_{23}H_{31}NO_7$	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7- <i>O</i> -(Phenylacetyl), 3''-Ac	$C_{23}H_{31}NO_7$	

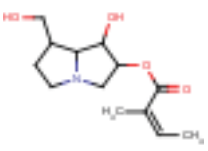
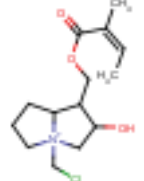
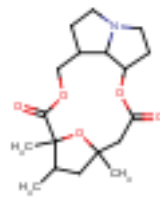
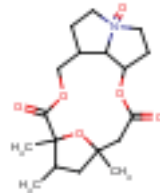
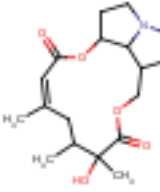
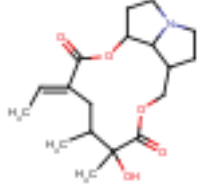
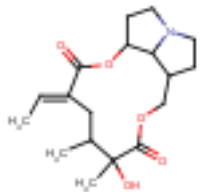
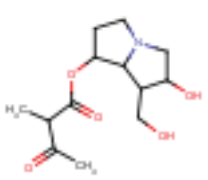
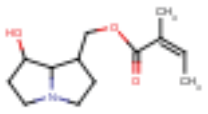
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 3'',7-Bis(2-methylbutanoyl)	C ₂₃ H ₃₉ NO ₇	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7-O-(2-Methylbutanoyl), 2'',3''-di-Ac	C ₂₂ H ₃₅ NO ₈	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 2''-Epimer, 7-O-(2-methylbutanoyl), 3''-Ac	C ₂₀ H ₃₃ NO ₇	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7-O-(2-Methylbutanoyl), 3''-Ac	C ₂₀ H ₃₃ NO ₇	
Alkaloid from <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 2''-Epimer, 7-O-(2-methylbutanoyl)	C ₁₈ H ₃₁ NO ₆	
Alkaloid from <i>Ipomoea hederifolia</i> (Convolvulaceae)	Ipanguline D ₃ ; 2''-Epimer	C ₁₃ H ₂₃ NO ₅	
Alkaloid from <i>Ipomoea hederifolia</i> (Convolvulaceae)	Ipanguline D ₃ ; 2''-Epimer, 3''-Ac	C ₁₅ H ₂₅ NO ₆	
Alkaloid from <i>Ipomoea hederifolia</i> (Convolvulaceae)	Ipanguline D ₃ ; 3''-Ac	C ₁₅ H ₂₅ NO ₆	
Alkaloid from <i>Ipomoea hederifolia</i> and <i>Ipomoea quamoclit</i>	Ipanguline D ₃ ; 2''-Epimer, 3''-(2-methylbutanoyl)	C ₁₈ H ₃₁ NO ₆	

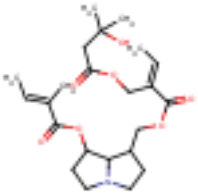
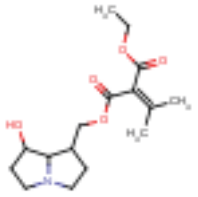
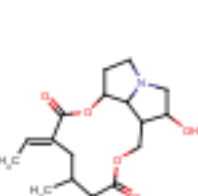
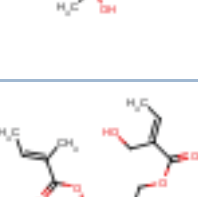
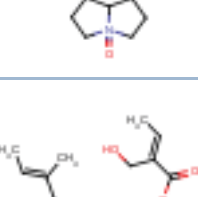
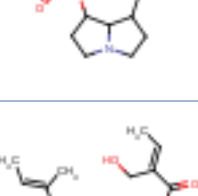
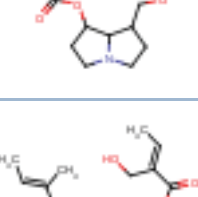
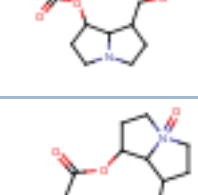
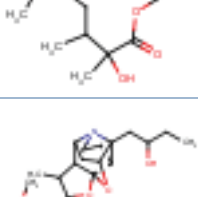
Alkaloid from <i>Ipomoea lobata</i>	Minalobine R	$C_{21}H_{29}NO_5$	
Alkaloid from <i>Liatris punctata</i> (Compositae)	Punctanecine	$C_{20}H_{33}NO_6$	
Alkaloid from <i>Lindelofia anchusoides</i> air-dried plants and <i>Lindelofia macrostyla</i> (Boraginaceae)	Trachelanthamine; 8-Epimer	$C_{15}H_{27}NO_4$	
Alkaloid from <i>Lindelofia macrostyla</i> (Boraginaceae)	Trachelanthamine; 8-Epimer, N-oxide	$C_{15}H_{27}NO_5$	
Alkaloid from <i>Lindelofia macrostyla</i> and <i>Lindelofia olgae</i> (Boraginaceae)	Trachelanthamine; 3'-Epimer, N-oxide	$C_{15}H_{27}NO_5$	
Alkaloid from <i>Liparis bicallosa</i> , <i>Liparis hachijoensis</i> and <i>Malaxis congesta</i> (Orchidaceae)	Keitine; 3'-Demethoxy, O ^{4'} -β-D-glucopyranoside	$C_{26}H_{37}NO_8$	
Alkaloid from <i>Liparis keitaoensis</i> (Orchidaceae)	Keitine	$C_{21}H_{29}NO_4$	
Alkaloid from <i>Liparis keitaoensis</i> (Orchidaceae)	Keitine; O ^{4'} -β-D-Glucopyranoside	$C_{27}H_{39}NO_9$	
Alkaloid from <i>Macrotomia echiodes</i> (Boraginaceae)	Floridimine; Stereoisomer	$C_{15}H_{27}NO_5$	

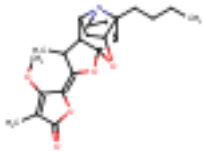
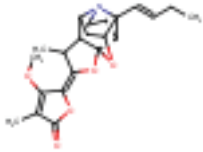
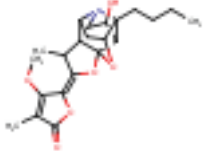
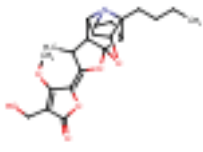
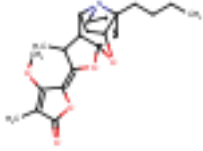
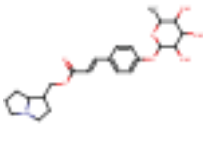
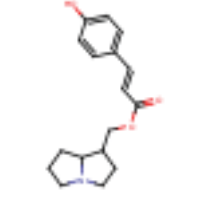
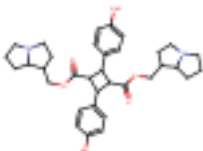
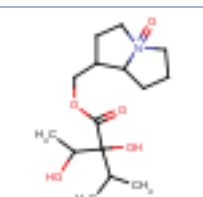
Alkaloid from <i>Malaxis grandifolia</i> (Orchidaceae)	Grandifoline	$C_{36}H_{53}NO_{12}$	
Alkaloid from <i>Osyris alba</i>	1-Hydroxymethylpyrrolizidine; (1 <i>S</i> ,7 <i>aR</i>)-form, 2ξ-Methylbutanoyl	$C_{13}H_{23}NO_2$	
Alkaloid from <i>Parsonsia heterophylla</i> and <i>Parsonsia spiralis</i> (Apocynaceae)	1-Hydroxymethylpyrrolizidine methyl 2-O-acetyl-2-isopropylmalate	$C_{18}H_{29}NO_6$	
Alkaloid from <i>Petasites japonicus</i> (sweet coltsfoot) (Compositae)	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, <i>O</i> ² -Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Phalaenopsis amabilis</i> , <i>Phalaenopsis aphrodite</i> , <i>Phalaenopsis fimbriata</i> , <i>Phalaenopsis sanderiana</i> , <i>Phalaenopsis stuartiana</i> and other <i>Phalaenopsis</i> spp. (often as mixt. with Phalaenopsine La) (Orchidaceae)	Phalaenopsines; (1 <i>R</i> ,8 <i>S</i>)-form	$C_{20}H_{27}NO_5$	
Alkaloid from <i>Phalaenopsis cornu-cervi</i> (Orchidaceae)	Cornucervine	$C_{17}H_{29}NO_5$	
Alkaloid from <i>Phalaenopsis equestris</i> (Orchidaceae)	Phalaenopsines; (1 <i>S</i> ,8 <i>S</i>)-form	$C_{20}H_{27}NO_5$	
Alkaloid from <i>Phalaenopsis mannii</i> , <i>Phalaenopsis amboinensis</i> , <i>Phalaenopsis sanderiana</i> , <i>Phalaenopsis schilleriana</i> , other <i>Phalaenopsis</i> spp. and from <i>Kingiella taenialis</i> (preferred genus name <i>Kingidium</i>) (Orchidaceae)	Phalaenopsines; (1 <i>S</i> ,8 <i>R</i>)-form	$C_{20}H_{27}NO_5$	
Alkaloid from <i>Pittocaulon bombycophole</i> and <i>Pittocaulon hintonii</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>R</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 1'-Angeloyl	$C_{13}H_{21}NO_3$	

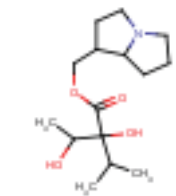
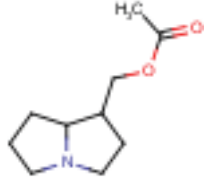
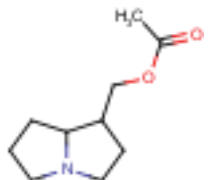
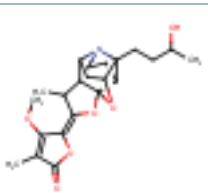
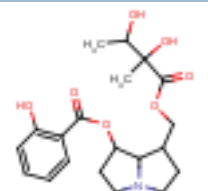
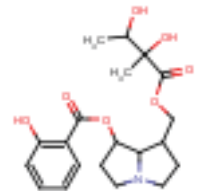
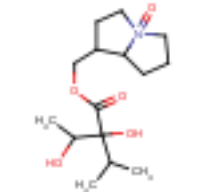
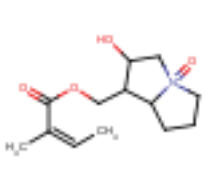
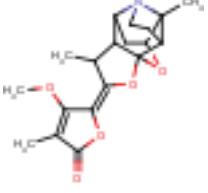
Alkaloid from <i>Pittocaulon praecox</i> and <i>Pittocaulon velatum</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>S</i> ,7 <i>aR</i>)-form, 1'-Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Pittocaulon praecox</i> and <i>Pittocaulon velatum</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>S</i> ,7 <i>aR</i>)-form, 7-Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Pittocaulon</i> spp. and <i>Senecio integrifolius</i> var. <i>fauriri</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>R</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 7-Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Senecio angulatus</i> (Compositae)	Rosmarinine; 13,19-Didehydro	$C_{18}H_{25}NO_6$	
Alkaloid from <i>Senecio aquaticus</i> ssp. <i>barbareifolius</i> and <i>Senecio chrysocoma</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aS</i>)-form, 1'-Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Senecio bracteatus</i> and <i>Senecio iodanthus</i>	Bulgarsenine; 12,13-Diepimer	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio callosus</i>	Callosine	$C_{21}H_{31}NO_7$	
Alkaloid from <i>Senecio callosus</i>	Bulgarsenine; O-Ac, N-oxide	$C_{20}H_{29}NO_7$	
Alkaloid from <i>Senecio callosus</i>	Bulgarsenine; O-Ac	$C_{20}H_{29}NO_6$	

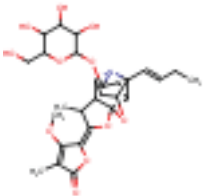
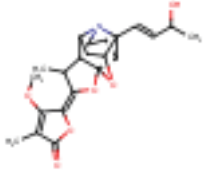
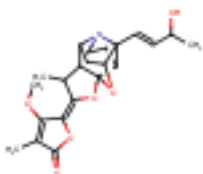
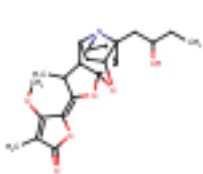
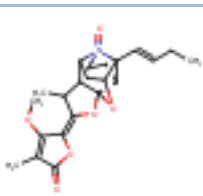
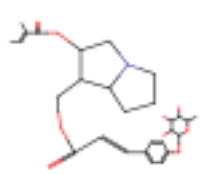
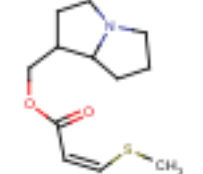
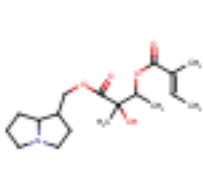
Alkaloid from <i>Senecio caudatus</i> (Compositae)	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aR</i>)-form, <i>O</i> ^{1'} -(3-Methyl-2-butenoyl)	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Senecio caudatus</i> (Compositae)	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aR</i>)-form, <i>O</i> ² -(3-Methyl-2-butenoyl)	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Senecio chrysocoma</i> and <i>Senecio kaschkarovii</i> . Tentatively identified also in a GC-MS study in <i>Senecio hydrophyllus</i> and <i>Senecio mikanioides</i> (Compositae)	Sarracine; (2' <i>Z</i> ,2'' <i>E</i>)-isomer	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio fuchsii</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 1'- <i>O</i> -(3-Methyl-2-butenoyl)	$C_{13}H_{21}NO_3$	
Alkaloid from <i>Senecio hadiensis</i> (Compositae)	Rosmarinine; 12-Ac	$C_{20}H_{29}NO_7$	
Alkaloid from <i>Senecio hadiensis</i> (Compositae)	Rosmarinine; (15 <i>E</i>)-Isomer	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Senecio hygrophyllus</i> (Compositae)	Platyphylline; 14α-Hydroxy	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Senecio integrifolius</i> var. <i>faurii</i> (Asteraceae)	Senkirkine; 1 <i>R</i> ,2-Dihydro	$C_{19}H_{29}NO_6$	
Alkaloid from <i>Senecio macrophyllus</i> (Compositae)	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aR</i>)-form, <i>O</i> ^{1'} -Angeloyl	$C_{13}H_{21}NO_3$	

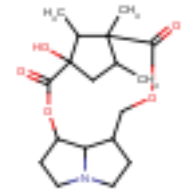
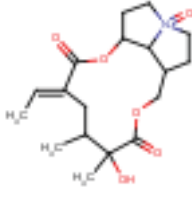
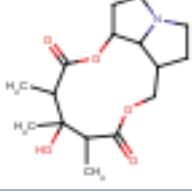
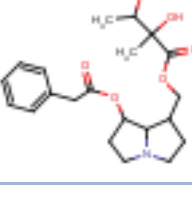
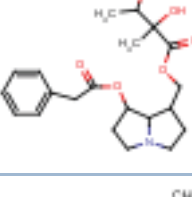
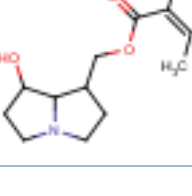
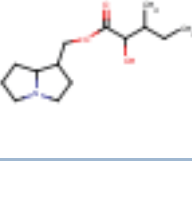
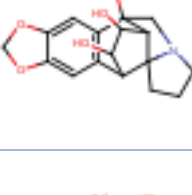
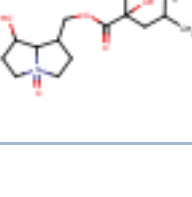
Alkaloid from <i>Senecio nemorensis</i>	1,2-Dihydroxy-7-hydroxymethylpyrrolizidine; (1 <i>R</i> *,2 <i>R</i> *,7 <i>R</i> *,7 <i>aR</i> *)-form, 2-Angeloyl	$C_{13}H_{21}NO_4$	
Alkaloid from <i>Senecio nemorensis</i>	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, <i>O</i> ^{1'} -Angeloyl, <i>N</i> -chloromethyl	$C_{14}H_{23}ClNO_3$	
Alkaloid from <i>Senecio nemorensis</i> (several varieties) (Compositae)	Nemorensine	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio nemorensis</i> var. <i>subdecurrens</i> (Compositae)	Nemorensine; <i>N</i> -Oxide	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Senecio nemorensis</i> , <i>Senecio doronicum</i> and <i>Senecio abrotanifolius</i> (Compositae)	Bulgarsenine	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio platyphyllus</i> and <i>Senecio rhombifolius</i> (Compositae)	Platyphylline; (15 <i>E</i>)-Isomer	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio platyphyllus</i> , <i>Senecio adnatus</i> , <i>Senecio hygrophyllus</i> , other <i>Senecio</i> spp., <i>Adenostyles</i> spp. (preferred genus name <i>Cacalia</i>) and <i>Petasites laevigatus</i> (Compositae)	Platyphylline	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio procerus</i> var. <i>procerus</i> (Compositae)	Procerine	$C_{13}H_{21}NO_5$	
Alkaloid from <i>Senecio racemosus</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>R</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 1'-Tigloyl	$C_{13}H_{21}NO_3$	

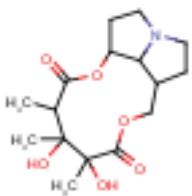
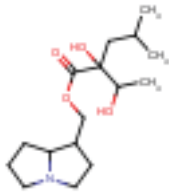
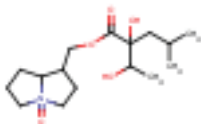
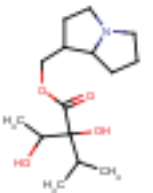
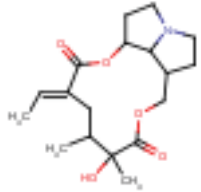
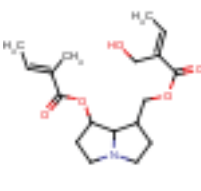
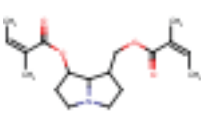
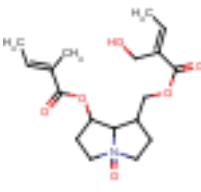
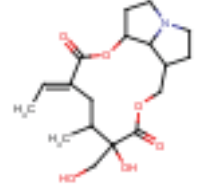
Alkaloid from <i>Senecio racemosus</i> (Compositae)	Sarracine; O-(3-Hydroxy-3-methylbutanoyl)	$C_{23}H_{35}NO_7$	
Alkaloid from <i>Senecio racemosus</i> (Compositae)	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>R</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 1'-O-(2-Ethoxycarbonyl-3-methyl-2-butenoyl)	$C_{16}H_{25}NO_5$	
Alkaloid from <i>Senecio rosmarinifolius</i> , <i>Senecio taiwanensis</i> , <i>Senecio brachypodus</i> , <i>Senecio triangularis</i> , <i>Senecio pauciligulatus</i> , <i>Senecio hygrophyllus</i> , <i>Senecio angulatus</i> and <i>Senecio halimifolius</i> (Compositae)	Rosmarinine	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Senecio sarraceni</i> , <i>Senecio franchetii</i> and <i>Senecio mikanoides</i> (Compositae)	Sarracine; N-Oxide	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Senecio sarraceni</i> , <i>Senecio mikanoides</i> , <i>Senecio sylvaticus</i> , <i>Senecio rhombifolius</i> , <i>Senecio franchetii</i> and <i>Adenostyles alliariae</i> (preferred genus name <i>Cacalia</i>) (Compositae)	Sarracine	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio serra</i> , <i>Senecio hydrophyllus</i> and <i>Senecio mikanoides</i> (Compositae)	Sarracine; (2' <i>E</i> ,2'' <i>E</i>)-isomer	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio serra</i> , <i>Senecio hydrophyllus</i> and <i>Senecio mikanoides</i> (Compositae)	Sarracine; (2' <i>E</i> ,2'' <i>Z</i>)-isomer	$C_{18}H_{27}NO_5$	
Alkaloid from <i>Senecio</i> spp. The form in which Platyphylline is present is <i>Senecio hygrophyllus</i> and probably in other spp. (Compositae)	Platyphylline; N-Oxide	$C_{18}H_{27}NO_6$	
Alkaloid from <i>Stemona aphylla</i> and <i>Stemona collinsae</i>	Stemofoline; 2' <i>S</i> -Hydroxy	$C_{22}H_{29}NO_6$	

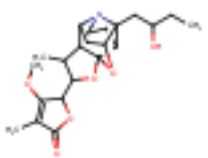
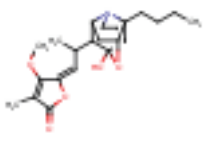
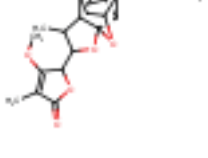
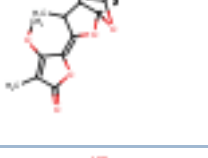
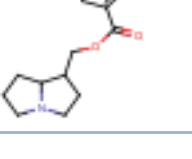
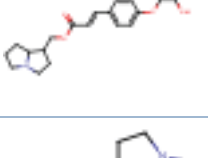
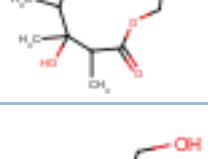
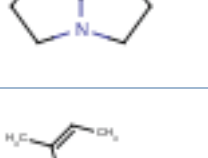
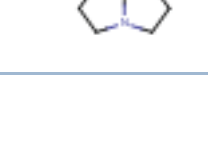
Alkaloid from <i>Stemona aphylla</i> , <i>Stemona japonica</i> and <i>Stemona parviflora</i>	Stemofoline	$C_{22}H_{29}NO_5$	
Alkaloid from <i>Stemona collinsae</i>	Stemofoline; (<i>E</i>)-Isomer, 1',2'-didehydro(<i>E</i> -)	$C_{22}H_{27}NO_5$	
Alkaloid from <i>Stemona japonica</i>	Stemofoline; 6 <i>S</i> -Hydroxy	$C_{22}H_{29}NO_6$	
Alkaloid from <i>Stemona japonica</i>	Stemofoline; 16-Hydroxy	$C_{22}H_{29}NO_6$	
Alkaloid from <i>Stemona</i> spp.	Stemofoline; (<i>E</i>)-Isomer	$C_{22}H_{29}NO_5$	
Alkaloid from <i>Tephrosia kirilowii</i> , <i>Festuca arundinacea</i> and <i>Lolium perenne</i>	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aR</i>) -form, O-[α-L -Rhamnopyranosyl-(→4)-4-hydroxy- <i>E</i> - -cinnamoyl]	$C_{23}H_{31}NO_7$	
Alkaloid from <i>Thesium minkwitzianum</i> (Santalaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aR</i>) -form, 4-Hydroxy- <i>E</i> -cinnamoyl	$C_{17}H_{21}NO_3$	
Alkaloid from <i>Thesium minkwitzianum</i> whole plant (Santalaceae)	Thesine	$C_{34}H_{42}N_2O_6$	
Alkaloid from <i>Trachelanthus korolkovii</i> (Boraginaceae)	Trachelanthamine; <i>N</i> -Oxide	$C_{15}H_{27}NO_5$	

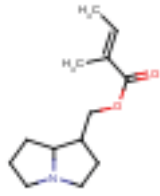
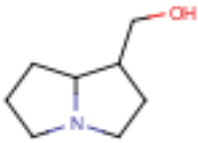
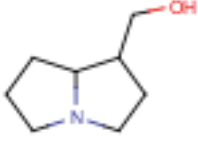
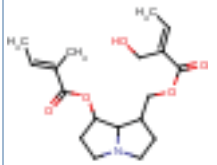
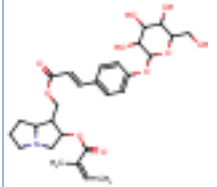
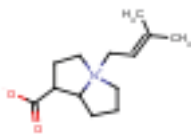
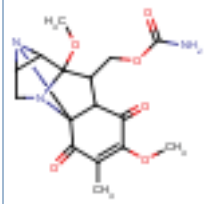
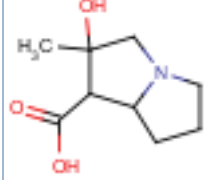
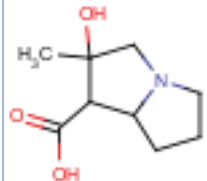
Alkaloid from <i>Trachelanthus korolkovii</i> , <i>Trachelanthus hissaricus</i> and <i>Rindera baldschuanica</i> (Boraginaceae)	Trachelanthamine	$C_{15}H_{27}NO_4$	
Alkaloid from <i>Vandopsis lissochiloides</i> and <i>Vandopsis gigantea</i> (Orchidaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aR</i>)-form, Ac	$C_{10}H_{17}NO_2$	
Alkaloid from <i>Vandopsis lissochiloides</i> and <i>Vandopsis gigantea</i> (Orchidaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>S</i> ,7 <i>aR</i>)-form, Ac	$C_{10}H_{17}NO_2$	
Alkaloid from a <i>Stemona</i> sp.	Stemofoline; 3' <i>S</i> -Hydroxy	$C_{22}H_{29}NO_6$	
Alkaloid from above-ground parts (without fruits) of <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 7- <i>O</i> -(2-Hydroxybenzoyl)	$C_{20}H_{27}NO_7$	
Alkaloid from above-ground parts (without fruits) of <i>Ipomoea hederifolia</i>	Ipanguline D ₃ ; 2''-Epimer, 7- <i>O</i> -(2-hydroxybenzoyl)	$C_{20}H_{27}NO_7$	
Alkaloid from aerial parts of <i>Heliotropium curassavicum</i> (Boraginaceae)	Trachelanthamine; 1,2',3'-Triepimer, <i>N</i> -oxide	$C_{15}H_{27}NO_5$	
Alkaloid from aerial parts of <i>Senecio deferens</i> (Compositae)	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>R</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, <i>O</i> 1'-Angeloyl, <i>N</i> -oxide	$C_{13}H_{21}NO_4$	
Alkaloid from an unidentified <i>Stemona</i> sp.	Methylstemofoline	$C_{19}H_{23}NO_5$	

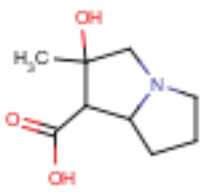
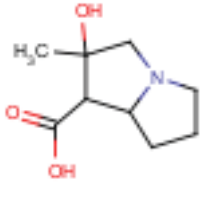
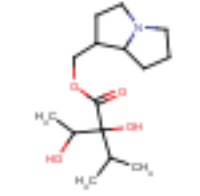
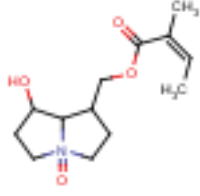
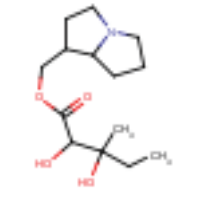
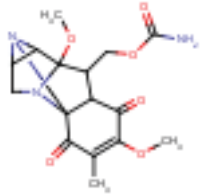
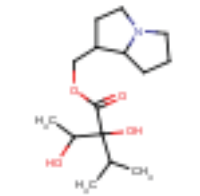
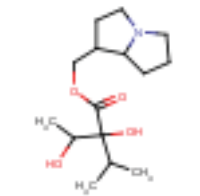
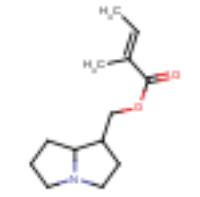
Alkaloid from an unidentified <i>Stemona</i> sp.	Stemofoline; 5-O-β-D-Glucopyranosyloxy, 1',2'-didehydro(<i>E</i> -)	$C_{28}H_{37}NO_{11}$	
Alkaloid from an unidentified <i>Stemona</i> sp.	Stemofoline; 3'S-Hydroxy, 1',2'-didehydro	$C_{22}H_{27}NO_6$	
Alkaloid from an unidentified <i>Stemona</i> sp.	Stemofoline; 3'R-Hydroxy, 1',2'-didehydro	$C_{22}H_{27}NO_6$	
Alkaloid from an unidentified <i>Stemona</i> sp.	Stemofoline; 2'R-Hydroxy	$C_{22}H_{29}NO_6$	
Alkaloid from an unidentified <i>Stemona</i> sp.	Stemofoline; 1',2'-Didehydro(<i>E</i> -), <i>N</i> -oxide	$C_{22}H_{27}NO_6$	
Alkaloid from flower stalks of <i>Petasites japonicus</i> (sweet coltsfoot) (Compositae)	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, <i>O</i> ² -Angeloyl, <i>O</i> ^{1'} -[α-L-rhamnopyranosyl-(→4)-4-hydroxy- <i>E</i> -cinnamoyl]	$C_{28}H_{37}NO_9$	
Alkaloid from leaves of <i>Senecio mulgediifolius</i> (Compositae)	Nemorensine; 11,14-Diepimer	$C_{18}H_{27}NO_5$	
Alkaloid from leaves of an unidentified <i>Planchonella</i> sp. (Sapotaceae)	Planchonelline; 8-Epimer	$C_{12}H_{19}NO_2S$	
Alkaloid from <i>Ipomoea cristulata</i>	Minalobine O	$C_{18}H_{29}NO_5$	

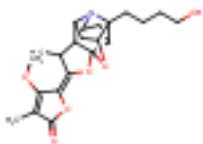
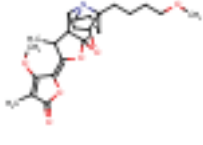
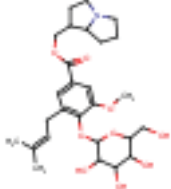
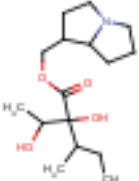
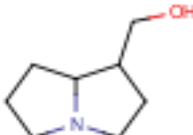
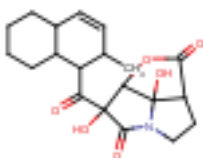
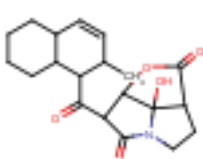
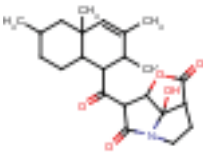
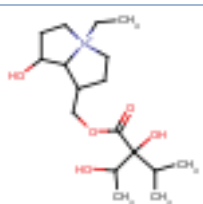
Alkaloid from root of <i>Ligularia lankongensis</i>	Lankongensisine	$C_{18}H_{27}NO_5$	
Alkaloid from roots of <i>Cacalia hupehensis</i> (Compositae)	Platyphylline; (15 <i>E</i>)-Isomer, <i>N</i> -oxide	$C_{18}H_{27}NO_6$	
Alkaloid from seeds of <i>Crotalaria candicans</i> (Leguminosae)	Crocandine; Stereoisomer	$C_{16}H_{25}NO_5$	
Alkaloid from seeds of <i>Ipomoea hederifolia</i> (Convolvulaceae)	Ipanguline D ₃ ; 7- <i>O</i> -(Phenylacetyl)	$C_{21}H_{29}NO_6$	
Alkaloid from seeds of <i>Ipomoea hederifolia</i> (Convolvulaceae)	Ipanguline D ₃ ; 2''-Epimer, 7- <i>O</i> -(phenylacetyl)	$C_{21}H_{29}NO_6$	
Alkaloid from stems and leaves of <i>Castilleja rhexifolia</i> aff. <i>miniata</i> (Scrophulariaceae)	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 1'-Angeloyl	$C_{13}H_{21}NO_3$	
Alkaloid from the bulbs of <i>Cremastra appendiculata</i>	1-Hydroxymethylpyrrolizidine; (1 <i>S</i> ,7 <i>aS</i>)-form, <i>O</i> -(2 <i>R</i> -Hydroxy-3 <i>R</i> -methylpentanoyl)	$C_{14}H_{25}NO_3$	
Alkaloid from the fruit of <i>Cephalotaxus harringtonia</i> var. <i>nana</i>	Cephalocyclidine A	$C_{17}H_{19}NO_5$	
Alkaloid from the leaves of <i>Anchusa strigosa</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 1'- <i>O</i> -[2 <i>S</i> -Hydroxy-2-(1 <i>S</i> -hydroxyethyl)-4-methylpentanoyl], <i>N</i> -oxide	$C_{16}H_{29}NO_6$	

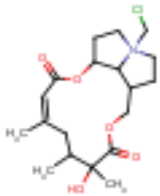
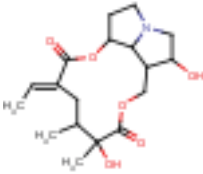
Alkaloid from the pericarps of <i>Crotalaria candicans</i> (Leguminosae)	Cropodine	$C_{16}H_{25}NO_6$	
Alkaloid from the roots of <i>Anchusa strigosa</i>	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aS</i>)-form, O-[2 <i>S</i> -Hydroxy-2-(1 <i>S</i> -hydroxyethyl)-4-methylpentanoyl]	$C_{16}H_{29}NO_4$	
Alkaloid from the roots of <i>Anchusa strigosa</i>	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aS</i>)-form, O-[2 <i>S</i> -Hydroxy-2-(1 <i>S</i> -hydroxyethyl)-4-methylpentanoyl], <i>N</i> -oxide	$C_{16}H_{29}NO_5$	
Alkaloid from the roots of <i>Cynoglossum furcatum</i>	Trachelanthamine; 1,3',8-Triepimer	$C_{15}H_{27}NO_4$	
Alkaloid from the roots of <i>Ligularia dentata</i> (Compositae)	Platyphylline; 12-Epimer	$C_{18}H_{27}NO_5$	
Alkaloid from the roots of <i>Senecio macedonicus</i>	Sarracine; 7 <i>a</i> -Epimer	$C_{18}H_{27}NO_5$	
Alkaloid from the roots of <i>Senecio macedonicus</i>	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, Diangeloyl	$C_{18}H_{27}NO_4$	
Alkaloid from the roots of <i>Senecio macedonicus</i>	Sarracine; 7 <i>a</i> -Epimer, <i>N</i> -oxide	$C_{18}H_{27}NO_6$	
Alkaloid from the roots of <i>Senecio subulatus</i> var. <i>erectus</i> (Compositae)	Platyphylline; 18-Hydroxy	$C_{18}H_{27}NO_6$	

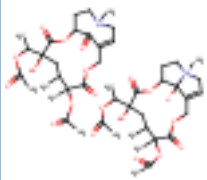
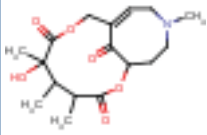
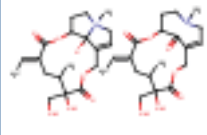
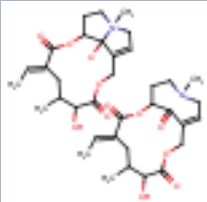
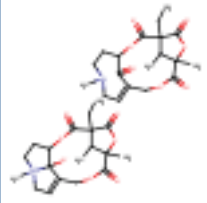
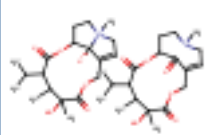
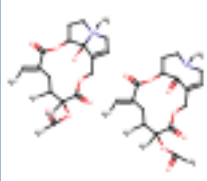
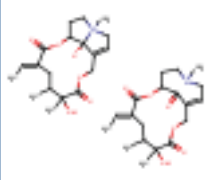
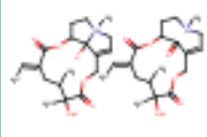
Alkaloid from the roots of <i>Stemona aphylla</i>	Stemofoline; 2'S-Hydroxy, 11β,12α-dihydro	C ₂₂ H ₃₁ NO ₆	
Alkaloid from the roots of <i>Stemona burkillii</i>	Stemoburkilline	C ₂₂ H ₃₁ NO ₅	
Alkaloid from the roots of <i>Stemona burkillii</i>	Stemofoline; 11S,12R-Dihydro	C ₂₂ H ₃₁ NO ₅	
Alkaloid from the roots of <i>Stemona collinsae</i> and <i>Asparagus racemosus</i>	Stemofoline; 1',2'-Didehydro(E-)	C ₂₂ H ₂₇ NO ₅	
Alkaloid from the seeds of <i>Alafia multiflora</i>	1-Hydroxymethylpyrrolizidine; (1R,7aS)-form, O-(4-Hydroxy-3,5-dimethoxybenzoyl)	C ₁₇ H ₂₃ NO ₅	
Alkaloid from the seeds of <i>Borago officinalis</i> (borago)	1-Hydroxymethylpyrrolizidine; (1R,7aR)-form, O-[β-D-Glucopyranosyl-(→4)-4-hydroxy-E-cinnamoyl]	C ₂₃ H ₃₁ NO ₈	
Alkaloid from the seeds of <i>Crotalaria candicans</i> (Leguminosae)	Crocandine	C ₁₆ H ₂₅ NO ₅	
Alkaloid from the seeds of <i>Cytisus laburnum</i> and from <i>Vandopsis</i> spp. (Leguminosae, Orchidaceae)	1-Hydroxymethylpyrrolizidine; (1S,7aR)-form	C ₈ H ₁₅ NO	
Alkaloid from the stems and leaves of <i>Castilleja rhexifolia</i> aff. <i>miniata</i> (Scrophulariaceae)	Hexahydro-7-hydroxy-1H-pyrrolizine-1-methanol; (1S,7R,7aR)-form, 7-Angeloyl	C ₁₃ H ₂₁ NO ₃	

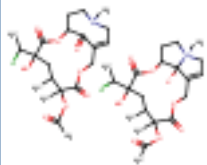
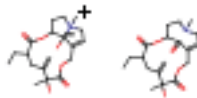
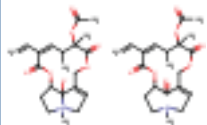
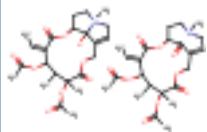
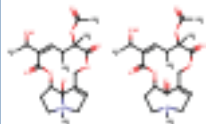
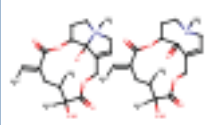
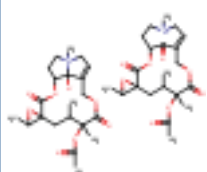
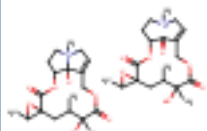
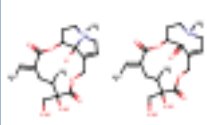
Alkaloid in <i>Planchonella thyrsoides</i> (preferred genus name <i>Pouteria</i>) and <i>Planchonella anteridifera</i> (Sapotaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>S</i> ,7 <i>aR</i>)-form, Tigloyl	$C_{13}H_{21}NO_2$	
Alkaloid present in <i>Eupatorium maculatum</i> and <i>Phalaenopsis equestris</i> (Compositae, Orchidaceae); also obt. by hydrol. of Trachelanthamine and Viridiflorine	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aS</i>)-form	$C_8H_{15}NO$	
Alkaloid present in <i>Planchonella equestris</i> , also obt. by hydrol. of other pyrrolizidine alkaloids (Sapotaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>S</i> ,7 <i>aS</i>)-form	$C_8H_{15}NO$	
Alkaloid present in the roots of <i>Senecio macedonicum</i>	Sarracine; 7 <i>a</i> -Epimer, (2' <i>Z</i> ,2'' <i>E</i>)-isomer	$C_{18}H_{27}NO_5$	
Constit. of <i>Senecio nemorensis</i>	2-Hydroxy-1-hydroxymethylpyrrolizidine; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form, <i>O</i> ² -Angeloyl, <i>O</i> ^{1'} -[β-D-glucopyranosyl-(→4)-4-hydroxy- <i>E</i> -cinnamoyl]	$C_{28}H_{37}NO_{10}$	
From <i>Anodendron affine</i> (Apocynaceae)	Anodendrine; 1-Epimer	$C_{13}H_{21}NO_2$	
From <i>Streptomyces</i> sp.	Albomitomycin A; 7-Demethoxy, 7-amino	$C_{15}H_{18}N_4O_5$	
Genuine alkaloid from <i>Arnica montana</i> , <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i>	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>R</i> ,2 <i>R</i> ,7 <i>aS</i>)-form	$C_9H_{15}NO_3$	
Genuine alkaloid from <i>Arnica montana</i> , <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i>	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>R</i> ,2 <i>S</i> ,7 <i>aS</i>)-form	$C_9H_{15}NO_3$	

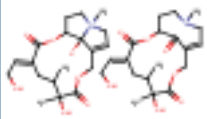
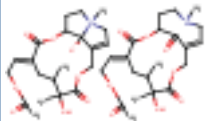
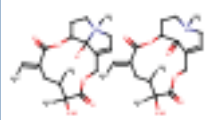
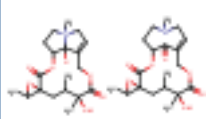
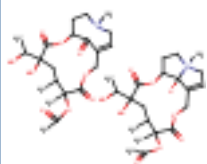
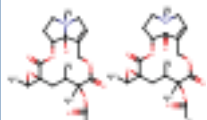
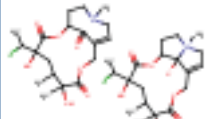
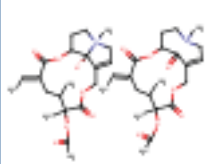
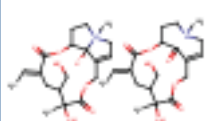
Genuine alkaloid from <i>Echinacea purpurea</i> , <i>Echinacea angustifolia</i> , <i>Arnica montana</i> , <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i>	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>S</i> ,2 <i>S</i> ,7 <i>aS</i>)-form	$C_9H_{15}NO_3$	
Genuine alkaloid from <i>Echinacea purpurea</i> , <i>Echinacea angustifolia</i> , <i>Arnica montana</i> , <i>Arnica chamissonis</i> ssp. <i>foliosa</i> , <i>Arnica amplexicaulis</i> and <i>Arnica sachalinensis</i>	Hexahydro-2-hydroxy-2-methyl-1 <i>H</i> -pyrrolizine-1-carboxylic acid; (1 <i>S</i> ,2 <i>R</i> ,7 <i>aS</i>)-form	$C_9H_{15}NO_3$	
Isol. from <i>Heliotropium curassavicum</i> (Boraginaceae)	Trachelanthamine; 1,2'-Diepimer	$C_{15}H_{27}NO_4$	
Isol. from the stems and leaves of <i>Castilleja rhexifolia</i> aff. <i>miniata</i> (Scrophulariaceae)	Hexahydro-7-hydroxy-1 <i>H</i> -pyrrolizine-1-methanol; (1 <i>S</i> ,7 <i>R</i> ,7 <i>aR</i>)-form, 1'-Angeloyl, <i>N</i> -oxide	$C_{13}H_{21}NO_4$	
Major alkaloid from <i>Heliotropium strigosum</i> (Boraginaceae)	Strigosine	$C_{14}H_{25}NO_4$	
Metab. of <i>Streptomyces caespitosus</i> . Prod. by intramolecular rearrangement of Mitomycin A	Albomitomycin A	$C_{16}H_{19}N_3O_6$	
Minor alkaloid from <i>Heliotropium curassavicum</i> (Boraginaceae)	Trachelanthamine; 1,2',3'-Triepimer	$C_{15}H_{27}NO_4$	
Minor alkaloid from <i>Heliotropium curassavicum</i> (Boraginaceae)	Trachelanthamine; Tetraepimer	$C_{15}H_{27}NO_4$	
Minor alkaloid from a <i>Planchonella</i> sp. (Sapotaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>S</i> ,7 <i>aS</i>)-form, Tigloyl	$C_{13}H_{21}NO_2$	

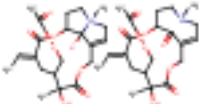
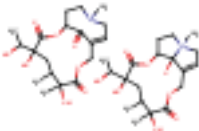
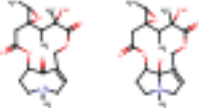
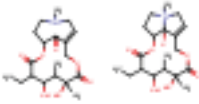
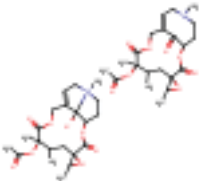
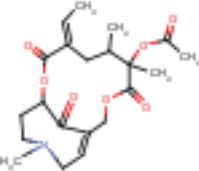
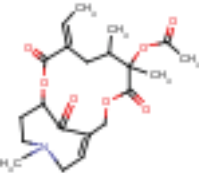
Minor alkaloid from roots of <i>Stemona parviflora</i>	Stemofoline; 4'-Hydroxy	$C_{22}H_{29}NO_6$	
Minor alkaloid from roots of <i>Stemona parviflora</i>	Stemofoline; 4'-Methoxy	$C_{23}H_{31}NO_6$	
Minor alkaloid of <i>Hammarbya paludosa</i> (Orchidaceae)	Keitine; 1-Epimer, $O^{4'}$ - β -D-glucopyranoside	$C_{27}H_{39}NO_9$	
Minor alkaloid of <i>Heliotropium curassavicum</i> (Boraginaceae)	Curassavine; 1-Epimer	$C_{16}H_{29}NO_4$	
Necine base from pyrrolizidine alkaloids, also isol. from <i>Thesium minkwitzianum</i> , <i>Vandopsis lissochiloides</i> and <i>Vandopsis gigantea</i> (Santalaceae, Orchidaceae)	1-Hydroxymethylpyrrolizidine; (1 <i>R</i> ,7 <i>aR</i>) -form	$C_8H_{15}NO$	
Prod. by <i>Acremonium</i> sp. KY4917	Antibiotic UCS 1025B	$C_{20}H_{25}NO_6$	
Prod. by <i>Acremonium</i> sp. KY4917	Antibiotic UCS 1025B; 2-Deoxy	$C_{20}H_{25}NO_5$	
Prod. by the fungal strain CL39457	Antibiotic CJ 16264	$C_{23}H_{31}NO_5$	
Quaternary alkaloid from <i>Lindlofia macrostyla</i> (Boraginaceae)	<i>N</i> -Ethylhastanecine trachelanthate	$C_{17}H_{32}NO_5$	

Quaternary alkaloid from <i>Senecio callosus</i>	Bulgarsenine; <i>N</i> -(Chloromethyl)	$C_{19}H_{29}ClNO_5$	
Trace alkaloid from <i>Senecio pterophorus</i> (Compositae)	Rosmarinine; Stereoisomer	$C_{18}H_{27}NO_6$	

Biological Source	Chemical Name	Molecular Formula	Structure
Alkaloid from <i>Cacalia floridana</i> (Compositae)	Onetine; O ¹² ,O ²⁰ -Di-Ac	C ₂₃ H ₃₃ NO ₁₀	
Alkaloid from <i>Crotalaria aegyptiaca</i> (Leguminosae)	Croaegyptine	C ₁₇ H ₂₅ NO ₆	
Alkaloid from <i>Crotalaria laburnifolia</i> (Leguminosae)	Senkirkine; 18-Hydroxy	C ₁₉ H ₂₇ NO ₇	
Alkaloid from <i>Crotalaria laburnifolia</i> (Leguminosae)	Crotafoline	C ₁₈ H ₂₅ NO ₆	
Alkaloid from <i>Crotalaria retusa</i> , <i>Crotalaria crassipes</i> , <i>Crotalaria mitchellii</i> and <i>Crotalaria novae-hollandiae</i> (Leguminosae)	Retusamine	C ₁₉ H ₂₅ NO ₇	
Alkaloid from <i>Crotalaria semperflorens</i> and <i>Crotalaria aegyptiaca</i>	Crosemperine	C ₁₉ H ₂₉ NO ₆	
Alkaloid from <i>Crotalaria verrucosa</i> (Leguminosae)	Senkirkine; 15 <i>E</i> -Isomer, 12-Ac, stereoisomer	C ₂₁ H ₂₉ NO ₇	
Alkaloid from <i>Crotalaria verrucosa</i> and <i>Crotalaria walkeri</i> (Leguminosae)	Senkirkine; 15 <i>E</i> -Isomer, stereoisomer	C ₁₉ H ₂₇ NO ₆	
Alkaloid from <i>Crotalaria walkeri</i> (Leguminosae)	Senkirkine; Stereoisomer	C ₁₉ H ₂₇ NO ₆	

Alkaloid from <i>Doronicum macrophyllum</i> roots and from <i>Senecio abrotanifolius</i> and <i>Senecio clelandii</i> (Compositae)	Onetine; 20-Deoxy, 20-chloro, O ¹² -Ac	C ₂₁ H ₃₀ ClNO ₈	
Alkaloid from <i>Emilia flammea</i> (Compositae)	Emiline	C ₁₉ H ₂₇ NO ₆	
Alkaloid from <i>Ligularia clivorum</i> and <i>Ligularia hodgsonii</i>	Clivorine	C ₂₁ H ₂₇ NO ₇	
Alkaloid from <i>Ligularia elegans</i> , <i>Ligularia hodgsonii</i> and <i>Ligularia dentata</i> (Compositae)	Ligularine	C ₂₃ H ₃₁ NO ₉	
Alkaloid from <i>Ligularia hodgsonii</i>	Clivorine; 20,21-Dihydro, 20ξ-hydroxy	C ₂₁ H ₂₉ NO ₈	
Alkaloid from <i>Nardosmia laevigata</i> , (preferred genus name <i>Petasites</i>), <i>Farfugium japonicum</i> , <i>Crotalaria laburnifolia</i> , <i>Senecio anonymus</i> , <i>Senecio kirkii</i> and others (Compositae, Leguminosae)	Senkirkine	C ₁₉ H ₂₇ NO ₆	
Alkaloid from <i>Petasites japonicus</i> (sweet coltsfoot) (Compositae)	Petasitenine; Ac	C ₂₁ H ₂₉ NO ₈	
Alkaloid from <i>Petasites japonicus</i> (sweet coltsfoot) (Compositae)	Petasitenine	C ₁₉ H ₂₇ NO ₇	
Alkaloid from <i>Senecio anonymus</i>	Senkirkine; 15 <i>E</i> -Isomer, 18-hydroxy	C ₁₉ H ₂₇ NO ₇	

Alkaloid from <i>Senecio anonymus</i> (Compositae)	Senkirkine; 15 <i>E</i> -Isomer, 21-hydroxy	C ₁₉ H ₂₇ NO ₇	
Alkaloid from <i>Senecio anonymus</i> (Compositae)	Senkirkine; 15 <i>E</i> -Isomer, 21-acetoxy	C ₂₁ H ₂₉ NO ₈	
Alkaloid from <i>Senecio auricola</i> (Compositae)	Senkirkine; (15 <i>E</i>)-Isomer	C ₁₉ H ₂₇ NO ₆	
Alkaloid from <i>Senecio cineraria</i> , <i>Senecio floridanus</i> (<i>Brachyglottis floridiana</i>), <i>Senecio fluviatilis</i> , <i>Senecio othonnae</i> , <i>Senecio renardi</i> and <i>Cacalia floridana</i> (Compositae)	Otosenine	C ₁₉ H ₂₇ NO ₇	
Alkaloid from <i>Senecio erraticus</i> , <i>Senecio othonnae</i> , <i>Senecio aureus</i> and <i>Cacalia floridana</i> (Compositae)	Onetine; O ¹² -Ac	C ₂₁ H ₃₁ NO ₉	
Alkaloid from <i>Senecio fluviatilis</i> and <i>Cacalia floridana</i> (Compositae)	Otosenine; Ac	C ₂₁ H ₂₉ NO ₈	
Alkaloid from <i>Senecio inaequidens</i> (Compositae)	Onetine; 20-Deoxy, 20-chloro	C ₁₉ H ₂₈ ClNO ₇	
Alkaloid from <i>Senecio kirkii</i> (Compositae)	Senkirkine; Ac	C ₂₁ H ₂₉ NO ₇	
Alkaloid from <i>Senecio laricifolius</i> (Compositae)	Senkirkine; 19-Hydroxy	C ₁₉ H ₂₇ NO ₇	

Alkaloid from <i>Senecio laricifolius</i> (Compositae)	Senkirkine; 19-Acetoxy	$C_{21}H_{29}NO_8$	
Alkaloid from <i>Senecio othonnae</i> (Compositae)	Onetine	$C_{19}H_{29}NO_8$	
Alkaloid from <i>Senecio racemosus</i> (Compositae)	Senecioracene	$C_{19}H_{27}NO_7$	
Alkaloid from <i>Syneilesis palmata</i> (Compositae)	Syneilesine	$C_{19}H_{29}NO_7$	
Alkaloid from the aerial parts and roots of <i>Ligularia dentata</i> (Compositae)	Ligularizine	$C_{21}H_{29}NO_8$	
Alkaloid from the aerial parts and roots of <i>Ligularia dentata</i> (Compositae)	Senkirkine; 15 <i>E</i> -Isomer, 12-epimer, 12-Ac	$C_{21}H_{29}NO_7$	
Alkaloid from the aerial parts of <i>Ligularia dentata</i> (Compositae)	Senkirkine; 12-Epimer, 12-Ac	$C_{21}H_{29}NO_7$	
Alkaloid from the fruit of <i>Crotalaria vitellina</i>	Crotaviteline	$C_{19}H_{25}NO_6$	
From <i>Syneilesis palmata</i> (Compositae)	Syneilesine; O ¹⁴ -Ac	$C_{21}H_{31}NO_8$	