

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Eleutherococcus senticosus*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WATER	Root		790000.0	0.13584730298158998	--
0	FIBER(DIETARY)	Root		360000.0	-0.41968027948872727	--
0	PROTEIN	Root	27300.0	130000.0	0.1301143428510278	--
0	FIBER(CRUDE)	Root		100000.0	-0.33350960238524374	--
0	SUGARS	Root	18900.0	90000.0	-0.13436730873315797	--
0	GUM	Root	14700.0	70000.0	-1.5011732500816033	--
0	ASH	Root	12600.0	60000.0	-0.2158449677296378	--
0	FAT	Root	4830.0	23000.0	0.004007840419506115	--
6	ELEUTHEROSIDES	Stem	6000.0	15000.0		--
0	HEDERASAPONIN-B	Leaf	800.0	10000.0		--
14	POTASSIUM	Root	2100.0	10000.0	-0.42314232638420207	--
6	ELEUTHEROSIDES	Root	6000.0	9000.0		--
0	EO	Root		8000.0	-0.2779713881053115	--
4	PHOSPHORUS	Root	1470.0	7000.0	0.6118650125540502	--
77	CHLOROGENIC-ACID	Root	1000.0	6045.0	0.4924993995792986	--
0	ELEUTHEROSIDE-L	Leaf		6000.0		--
65	MAGNESIUM	Root	1050.0	5000.0	1.297512854456367	--
0	EO	Fruit		5000.0	-0.7227768403857732	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	ELEUTHEROSIDE-B	Root	985.0	5000.0		--
1	ELEUTHEROSIDE-C	Root		4000.0		--
9	SYRINGIN	Root	40.0	4000.0		--
0	D-SUCROSE	Root		4000.0		--
28	CALCIUM	Root	840.0	4000.0	-0.3726684764630539	--
0	EO	Leaf		3100.0	-0.7419437024243408	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	ELEUTHEROSIDE-B-1	Tissue Culture		3000.0		--
0	ELEUTHEROSIDE-K	Leaf		3000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MUSSENIN-B	Leaf		3000.0		--
4	LIRIODENDRIN	Root	116.6	2800.0		--
0	EO	Stem		2600.0	-0.36140347033676956	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
5	DAUCOSTEROL	Root		2100.0	2.3882043775879427	--
9	SYRINGIN	Root Bark		1370.0		--
0	CIWUJIANOSIDE-C-2	Leaf		1300.0		--
2	SYRINGARESINOL-DI-O-GLUCOSIDE	Root		1300.0		--
0	ELEUTHEROSIDE-A	Root		1000.0		--
2	ELEUTHEROSIDE-E	Root		1000.0		--
1	ELEUTHEROSIDE-D	Root		800.0		--
1	SYRINGARESINOL-GLUCOSIDE	Root		790.0		--
0	CIWUJIANOSIDE-D-2	Leaf		700.0		--
0	ELEUTHEROSIDE-G	Root	250.0	600.0		--
0	CIWUJIANOSIDE-B	Leaf		500.0		--
0	ELEUTHEROSIDE-F	Root	400.0	500.0		--
0	CIWUJIANOSIDE-C-4	Leaf		400.0		--
3	3,4-DIHYDROXYBENZOIC-ACID	Bark		313.3		--
0	CIWUJIANOSIDE-C-3	Leaf		300.0		--
1	CIWUJIANOSIDE-C-1	Leaf		300.0		--
0	(-)-SESAMIN	Root		230.0		--
0	ELEUTHEROSIDE-B-4	Root		230.0		--
15	SESAMIN	Root		230.0		--
112	ASCORBIC-ACID	Root	42.0	200.0	-0.5316446846418599	--
1	CIWUJIANOSIDE-D-1	Leaf		200.0		--
0	GLUCOSYL-ISOFRAXIDIN	Root		175.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	3-O-ALPHA-L-RHAMNOPYRANOSYL-(1,2)-ALPHA-ARABINOPYRANOSYL-OLEANOLIC-ACID	Leaf		100.0		--
0	CIWUJIANOSIDE-E	Leaf		100.0		--
0	CIWUJIANOSIDE-D-3	Leaf		100.0		--
1	SODIUM	Root	21.0	99.0	-0.46667660193674004	--
64	OLEANOLIC-ACID	Root		84.0	-0.6809540909763485	--
2	CONIFERIN	Root		83.3		--
0	CIWUJIANOSIDE-A-3	Leaf		80.0		--
77	CHLOROGENIC-ACID	Stem Bark		77.1		--
0	SINAPALDEHYDE-GLUCOSIDE	Root		73.3		--
39	NIACIN	Root	15.0	72.0	0.6306869414315236	--
0	CONIFERINALDEHYDE-GLUCOSIDE	Root		60.0		--
0	CIWUJIANOSIDE-A-4	Leaf		60.0		--
0	(+)-LIRIODENDRIN	Stem Bark		60.0		--
0	CIWUJIANOSIDE-A-1	Leaf		50.0		--
0	CIWUJIANOSIDE-A-2	Leaf		50.0		--
5	ISOFRAXIDIN	Root		40.0	-1.0	--
53	BETA-CAROTENE	Root	6.0	30.0	-0.24459504584619188	--
0	1,5-DI-O-CAFFEOYLQUINIC-ACID	Root		26.6		--
9	SYRINGIN	Stem Bark		24.0		--
1	ELEUTHEROSIDE-B-1	Stem Bark		23.3		--
5	ISOFRAXIDIN	Stem Bark		21.6		--
6	IRON	Root	2.5	12.0	-0.42421971919788043	--
0	(+)-SYRINGARESINOL-O-BETA-D-GLUCOSIDE	Stem Bark		8.8		--
0	(+)-PINORESINOL-O-BETA-D-GLUCOSIDE	Stem Bark		8.0		--
3	2,6-DIMETHOXY-P-BENZOQUINONE	Stem Bark		5.5		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	ZINC	Root	0.9	4.2	-0.8749958361247925	--
14	MANGANESE	Root	0.6	3.0	-0.5100505761569326	--
15	RIBOFLAVIN	Root	0.5	2.4	-0.3664612276506602	--
0	(+)-PINORESINOL-DI-O-BETA-D-GLUCOSIDE	Stem Bark		2.3		--
0	THIAMINE	Root	0.4	2.0	-0.46176774546761545	--
0	(+)-MEDIORESINOL-DI-O-BETA-D-GLUCOSIDE	Stem Bark		1.2		--
1	ELEUTHEROSIDE-B-1	Root		1.1		--
0	ELEUTHEROSIDE-B-2	Root		1.0		--
60	SELENIUM	Root	0.2	1.0	-0.29131634494743897	--
0	SENTICOSIDE-B	Leaf				--
1	D-GLUCOSE	Root				Abstract (See species file)
61	FERULIC-ACID	Root				--
28	VANILLIN	Root				--
0	ALPHA-MALTOSE	Root				--
43	PROTOCATECHUIC-ACID	Stem Bark				--
0	ELEUTHERAN-A	Root				--
0	SUGARS	Flower				--
0	ELEUTHEROSIDE-L	Root				--
0	ELEUTHEROSIDE-E-5	Root				--
1	CIWUJIANOSIDE-D-1	Root				--
0	VIT-E	Root				--
0	HEDERASAPONIN-B	Root				--
10	LIGNANS	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	SENTICOSIDE-A	Leaf				--
0	D-GALACTOSE	Root				Abstract (See species file)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ELEUTHEROCOCCUS-SAPONIN-D	Root				--
24	VANILLIC-ACID	Root				--
77	CHLOROGENIC-ACID	Tissue Culture				--
0	POLYSACCHARIDE	Root				--
1	ELEUTHEROSIDE-D	Stem Bark				--
0	ISOPIMARA-9(11)-15-DIEN-19-OL	Root				--
5	SAPONINS	Plant				--
0	COUMARIN-X	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gokeikagaku Kaishi 61(9): 1119-1122.
0	ELEUTHEROCOCCUS-POLYSACCHARIDE-PES-B	Root				--
32	ALPHA-TOCOPHEROL	Root				--
12	COPPER	Stem				--
25	P-COUMARIC-ACID	Root				--
1	ELEUTHEROSIDE-D	Tissue Culture				--
0	SYRINGARESINOL-DIGLUCOSIDE	Root				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	BETA-GLUCOSE	Root				--
0	ISOFRAXIDIN-7-O-ALPHA-L-GLUCOSIDE	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	RESIN	Root				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
12	COPPER	Root				--
0	ELEUTHEROCOCCUS-POLYSACCHARIDE-PES-A	Root				--
9	SYRINGIN	Stem				--
12	COPPER	Flower				--
6	CONIFERYL-ALCOHOL	Root				--

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0	ELEUTHEROSIDE-M	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
14	SUCROSE	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
0	ALPHA-GLUCOSE	Root				--
0	HEDERASAPONIN	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	POLYSACCHARIDE-PES-B	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
5	CONIFERYL-ALDEHYDE	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
0	ELEUTHEROCOCCUS-POLYSACCHARIDE-AS-2	Fruit				--
9	SYRINGIN	Tissue Culture				--
0	CAROTENE	Root				--
12	COPPER	Leaf				--
1	ELEUTHEROSIDE-B-1	Stem				--
0	ELEUTHEROSIDE-L	Plant				--
1	SINAPYLALCOHOL	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
4	SILICON	Root				--
7	GLUCOSE	Root				--

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0	POLYSACCHARIDE-PES-A	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
0	CAFFEIC-ACID-ETHYL-ESTER	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122.
8	STEARIC-ACID	Rhizome				--
0	ELEUTHERAN-G	Root				--
0	ELEUTHEROSIDE-K	Root				--
64	OLEANOLIC-ACID	Leaf				--
0	ELEUTHEROSIDE-K	Plant				--
1	GALACTOSE	Root				--
13	FALCARINDIOL	Root				--
1	CIWUJIANOSIDE-C-1	Root				--
102	CAFFEIC-ACID	Root				--
47	BETA-SITOSTEROL	Root Bark				--
0	ELEUTHERAN-F	Root				--
24	PECTIN	Root				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	STEROL	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
2	CONIFERIN	Stem Bark				--
0	ELEUTHEROSIDE-I	Plant				--
0	SENTICOSIDE-F	Leaf				--
0	ELEUTHEROCOCCAL	Plant				--
2	FRIEDELIN	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BETA-CALYCANTHOSIDE	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
22	BETULINIC-ACID	Rhizome				--
0	SINAPYL-ALCOHOL-4-O-(2'-ALPHA-L-APIOSYL-BETA-D-GLUCOPYRANOSIDE)	Stem Bark				--
0	ELEUTHERAN-E	Root				--
6	SYRINGIC-ACID	Root				--
13	P-HYDROXY-BENZOIC-ACID	Root				--
0	ELEUTHEROSIDE-J	Root				--
2	PHYTOSTEROLS	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
8	AMYGDALIN	Rhizome				--
0	SENTICOSIDE-E	Leaf				--
0	ELEUTHERANS	Root				--
0	ISOFRAXOSIDE	Root				--
0	ARIENSIN	Root				--
47	BETA-SITOSTEROL	Root				--
2	COBALT	Root				--
0	ELEUTHERAN-D	Root				--
0	ELEUTHEROSIDE-E-8	Root				--
0	PHENYLPROPANOIDS	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
75	VITAMIN-E	Root				Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gokeikagaku Kaishi 61(9): 1119-1122.

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0	SENTICOSIDE-D	Leaf				--
0	DAUCOSTERIN	Stem Bark				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	ACANTHOSIDE-D	Root				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	BETA-MALTOSE	Root				--
44	SCOPOLETIN	Stem Bark				--
24	CHROMIUM	Root				--
0	ELEUTHERAN-C	Root				--
0	ELEUTHEROSIDE-E-7	Root				--
0	GLYCANS	Root				Abstract (See species file)
0	ELEUTHERANS-A-G	Root				--
1	BETA-HEDERIN	Root				--
4	LIRIODENDRIN	Tissue Culture				--
0	MUSSENIN-B	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	SENTICOSIDE-C	Leaf				--
0	DAUCOSTERIN	Root Bark				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
5	ISOFRAXIDIN	Tissue Culture				--
3	3,4-DIHYDROXYBENZOIC-ACID	Root				--
0	PROTOCATECHUIC-ACID-3'-O-BETA-D-GLUCOSIDE	Stem Bark				--
0	ELEUTHERAN-B	Root				--
1	SYRINGARESINOL	Root				--
0	ELEUTHEROSIDE-E-6	Root				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WAX	Root				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	METHYL-ALPHA-D-GALACTOSIDE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.