

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Astragalus membranaceus*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	D-GLUCOSE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
1	SODIUM	Root	64.0	400.0	-0.32652648701580106	--
2	MOLYBDENUM	Root	0.1	10.0	2.6325714919134473	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	COBALT	Root	0.4	2.5	-0.4909460027790993	--
2	L-3-HYDROXY-9-METHOXYPTEROCARPAN	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	ASPARAGINE	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
3	ASTRAMEMBRANIN-I	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
3	ASPARTIC-ACID	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
3	ALANINE	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
4	PHOSPHORUS	Root	104.0	650.0	-0.5038891291778125	--
4	ISOFERULIC-ACID	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
4	SILICON	Root	3.2	20.0	-0.2510309186692663	--
6	IRON	Root	3.2	20.0	-0.4125973953033244	--
7	RHAMNOCITRIN	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	GLUTAMIC-ACID	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
11	ISORHAMNETIN	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
12	COPPER	Root	1.0	9.0	-0.30116857246091955	--
14	BETAINE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
14	CANAVANINE	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
14	ARGININE	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
14	SUCROSE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
14	POTASSIUM	Root	1280.0	8000.0	-0.5695891878357887	--
14	MANGANESE	Root				--
15	RIBOFLAVIN	Root	0.4	2.5	-0.3445770066726076	--
16	FORMONONETIN	Root				--
20	CHOLINE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
22	GABA	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
23	FOLIC-ACID	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
24	CHROMIUM	Root	0.3	0.8	-0.40048877739295385	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
27	LINOLEIC-ACID	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
28	ISOLIQUIRITIGENIN	Root				Chemical Constituents of Oriental Herbs (3 diff. books)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	CALCIUM	Root	560.0	3500.0	-0.42742749848868644	--
39	NIACIN	Root				--
47	BETA-SITOSTEROL	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
53	BETA-CAROTENE	Root				--
57	COUMARIN	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
60	SELENIUM	Root	0.2	1.0	-0.29131634494743897	--
61	FERULIC-ACID	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
65	MAGNESIUM	Root	800.0	5000.0	1.297512854456367	--
75	KAEMPFEROL	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
77	CHLOROGENIC-ACID	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
77	ZINC	Root	0.8	5.0	-0.8399576796962069	--
102	CAFFEIC-ACID	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
112	ASCORBIC-ACID	Root				--
176	QUERCETIN	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.