

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Frangula purshiana*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CARBOHYDRATES	Bark	224093.0	809000.0	0.33938102144232346	--
6	ANTHRAQUINONES	Bark	60000.0	100000.0	1.0	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	CASCAROSIDES	Bark	40000.0	65000.0		--
0	PROTEIN	Bark	25207.0	91000.0	0.43752942985999416	--
0	ASH	Bark	18559.0	67000.0	-0.3419190329694244	--
0	SUGARS	Bark	13850.0	50000.0	-0.5773502691896257	--
0	FAT	Bark	8864.0	32000.0	0.9470044614826844	--
28	CALCIUM	Bark	4100.0	14800.0	-0.3701186348289897	--
14	POTASSIUM	Bark	1103.0	3980.0	-0.43722012313816594	--
65	MAGNESIUM	Bark	440.0	1590.0	-0.10911131301072557	--
4	PHOSPHORUS	Bark	158.0	570.0	-0.5349997224798418	--
5	ALUMINUM	Bark	27.0	99.0	-0.42073897270651045	--
1	SODIUM	Bark	26.0	93.0	-0.408100271312514	--
53	BETA-CAROTENE	Bark	13.0	46.0	2.1374028017190314	--
39	NIACIN	Bark	8.0	29.0	-0.5491524863663554	--
6	IRON	Bark	6.4	23.0	-0.8041825931162928	--
2	COBALT	Bark	3.2	11.6	-0.18574693845267193	--
4	TIN	Bark	1.4	5.1	-0.9625249451887514	--
14	MANGANESE	Bark	0.4	1.4	-0.6672097230657966	--
60	SELENIUM	Bark	0.3	1.1	-0.4642594780283318	--
24	CHROMIUM	Bark	0.2	0.6	-0.5240392018021011	--
0	ALOE-EMODIN-8-O-BETA-D-GLUCOSIDE	Bark				--
24	ALOE-EMODIN	Bark				--
0	CHRYSOPHANIC-ACID-ANTHRONE	Tissue Culture				--
77	ZINC	Bark				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BICASCAROSIDE-CD	Bark				--
1	FRANGULAEMODIN	Bark				--
0	RHAMNUSOXIN	Plant				--
24	ALOE-EMODIN	Tissue Culture				--
6	MYRISTIC-ACID	Plant				--
0	1,6,8-TRIHYDROXY-3-METHYL-9-GLUCOSYL-ANTHRAQUINONE	Plant				--
2	CHRYSOPHANIC-ACID-9-ANTHRONE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
58	EMODIN	Bl				--
0	BICASCAROSIDE-CC	Bark				--
0	WATER	Bark		723000.0	0.24192319620065653	--
0	EMOSIN-OXANTHRONE	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	RHAMNOL	Plant				--
0	THIAMINE	Bark		0.0	-0.7500000000000002	--
6	CHRYSOPHANIC-ACID	Tissue Culture				--
0	DEOXYBARBALOIN	Bark				--
0	11-DEOXYBARBALOIN	Bark				--
0	BICASCAROSIDE-BD	Bark				--
0	EMODIN-ANTHRONE	Bark				--
0	RESIN	Plant				--
15	MALIC-ACID	Plant				--
0	CASSIAMIN-C	Bark		120.0		--
0	10-HYDROXYALOIN-B	Bark				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BICASCAROSIDE-BC	Bark				--
31	THIAMIN	Bark		0.0	-0.6585046078685182	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	EMODIN-ANTHRONE	Tissue Culture				--
0	QUEBRACHOL	Plant				--
6	BARBALOIN	Bark				--
0	FIBER(DIETARY)	Bark		560000.0	1.1932784648463484	--
0	CASCAROSIDE-F	Bark				--
10	CHRYSOPHANOL	Bark				--
0	10-HYDROXYALOIN-A	Bark				--
0	BICASCAROSIDE-BB	Bark				--
35	TANNIN	Plant				--
58	EMODIN	Tissue Culture				--
0	BICASCAROSIDE-AD	Bark				--
0	PURSHIANIN	Plant				--
0	FIBER(CRUDE)	Bark		310000.0	2.339823678190987	--
27	LINOLEIC-ACID	Plant				--
0	CASCAROSIDE-E	Bark				--
6	CHRYSOPHANIC-ACID	Plant				--
0	PROTEIN	Seed		250000.0	0.14414237103378544	Earle, F. R., Glass, C. A., Geisinger, G. C., Wolff, I. A., Jones, Q. 1960. Search for New Industrial Oils. IV. J. Amer. Oil Chem. Soc. 37: 440-. Northern Regional Research Lab ARS USDA Peoria, IL, USA.
41	TANNIC-ACID	Plant				--
58	EMODIN	Bark				--
0	BICASCAROSIDE-AC	Bark				--
112	ASCORBIC-ACID	Bark		0.0	-1.0104899665727316	--

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0	TANNINS	Bark				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	KILOCALORIES	Bark		2370.0	-0.7511810552670951	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	CASCAROSIDE-D	Bark				--
0	PHYSCION-ANTHRONE	Bark				--
0	SYRINGIN-ACID	Plant				--
0	CHRYSALOIN	Bark				--
0	CHRYSOPHANOL-8-O-BETA-D-GLUCOSIDE	Bark				--
0	BICASCAROSIDE-AB	Bark				--
0	RESINS	Bark				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ISOEMODIN	Plant				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	CASCAROSIDE-C	Bark				--
0	PHYSCION-ANTHRONE	Tissue Culture				--
0	BICASCAROSIDE-AA	Bark				--
0	CHRYSOPHANIC-ACID-PHYSCION-DIANTHRONE	Tissue Culture				--
6	CHRYSOPHANIC-ACID	Bark				--
0	CASCAROSIDE-B	Bark				--
0	PHYSCION-8-GLUCOSIDE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
4	SILICON	Bark				--

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0	ANTHRANOL	Bark				Mary, N. Y., Christensen, B. V., Beal, J. L. 1956. A Paper Chromatographic Study of Aloe, Aloin and Cascara sagrada. J. Amer. Pharm. Ass. Sci. Ed., 45: 229-232.
0	PALMIDINS	Bark				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
12	ALOIN	Plant				--
0	CHRYSOPHANIC-ACID-DIMER	Bark		840.0		--
6	SYRINGIC-ACID	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.
1	FRANGULIN	Bark				--
1	CASCAROSIDE-A	Bark				--
5	PHYSICION	Tissue Culture				--
0	CASCARIN	Plant				--
0	ALOE-EMODIN-DIMER	Bark		1300.0		--
0	OXANTHRONE	Plant				--
0	ALOE-EMODIN-8-MONO-BETA-GLUCOSIDE	Bark				--
0	CHRYSOPHANIC-ACID-DIANTHRONE	Tissue Culture				--
58	EMODIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
15	FIBER	Bark		310000.0	1.49734444643886513	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

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0	BICASCAROSIDE-DD	Bark				--
5	PHYSCION	Bark				--
15	RIBOFLAVIN	Bark		0.0	-1.033653783963848	--
1	CASANTHRANOL	Bark				--