

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Althaea officinalis*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	ZINC	Root				--
3	XYLOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	XYLAN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	WATER	Root		892000.0	0.8034636135635553	--
24	VANILLIC-ACID	Leaf				--
24	VANILLIC-ACID	Flower				--
24	VANILLIC-ACID	Root				--
3	VALINE	Root				--
0	URONIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
22	UMBELLIFERONE	Root				--
22	UMBELLIFERONE	Shoot				--
4	TIN	Root	3.0	29.0	1.2720232250646093	--
3	TILIROSIDE	Flower		1900.0		--
3	TILIROSIDE	Leaf		2500.0		--
0	THIAMINE	Root	0.1	1.0	-0.665115009526749	--
31	THIAMIN	Root		1.0	-0.5047871686237749	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
35	TANNIN	Root		20000.0	-1.7590478728926933	--
6	SYRINGIC-ACID	Flower				--
6	SYRINGIC-ACID	Root				--
6	SYRINGIC-ACID	Leaf				--
0	SUGARS	Root	11880.0	110000.0	0.05921602494532206	--
0	SUGAR	Root	50000.0	110000.0	1.0259914748998127	--
14	SUCROSE	Plant				Wealth of India.
0	STEROLS	Root				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	STEARIC-ACID	Seed	12415.0	16685.0	-0.20338219754526743	Wealth of India.
5	STARCH	Root	39960.0	370000.0	0.2269958278173157	--
4	SPIRAEOSIDE	Flower				--
4	SPIRAEOSIDE	Leaf				--
11	SORBITOL	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	SODIUM-BORATE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
1	SODIUM	Root	148.0	1370.0	0.12512006272941759	--
9	SINAPIC-ACID	Flower				--
9	SINAPIC-ACID	Leaf				--
4	SILICON	Root	0.3	3.0	-0.32912368458456387	--
60	SELENIUM	Root	0.4	3.3	-0.12770210212970026	--
0	SCYLLITOL	Leaf		800.0	-1.0	--
0	SCOPOLINE	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
3	SCOPOLIN	Root				--
3	SCOPOLIN	Shoot				--
44	SCOPOLETIN	Root				--
44	SCOPOLETIN	Flower				--
44	SCOPOLETIN	Leaf				--
44	SCOPOLETIN	Shoot				--
5	SAPONINS	Root				--
34	SALICYLIC-ACID	Root				--
34	SALICYLIC-ACID	Flower				--
34	SALICYLIC-ACID	Leaf				--
15	RIBOFLAVIN	Root	0.1	0.5	-0.7822614262336574	--
0	RHAMNOGALACTURONAN S	Root				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	QUERCETIN-3'-GLUCOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
176	QUERCETIN	Root				--
176	QUERCETIN	Leaf				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.
43	PROTOCATECHUIC-ACID	Flower				--
43	PROTOCATECHUIC-ACID	Leaf				--
0	PROTEIN	Seed	227000.0	237000.0	0.02850063861926227	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	PROTEIN	Root	11664.0	108000.0	-0.11693489662361256	--
14	POTASSIUM	Root	1307.0	12100.0	-0.26937312186003615	--
0	POPULNIN	Flower				--
0	POLYSACCHARIDES	Root	250000.0	350000.0		--
0	POLYSACCHARIDE	Root				--
2	PHYTOSTEROLS	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	PHOSPHORUS	Root	277.0	2560.0	-0.1682843400899607	--
0	PENTOSANS	Plant				Pakistan Encyclopedia Planta Medica. 1986.
24	PECTIN	Root	110000.0	350000.0	1.9565371321871459	--
4	PARAFFIN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
13	PALMITIC-ACID	Seed	12415.0	16685.0	-0.3553353614139409	Wealth of India.
0	P-HYDROXYPHENYLACETIC-ACID	Flower				--
0	P-HYDROXYPHENYLACETIC-ACID	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	P-HYDROXYPHENYLACETIC-ACID	Root				--
0	P-HYDROXYACETIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
13	P-HYDROXY-BENZOIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
25	P-COUMARIC-ACID	Root				--
25	P-COUMARIC-ACID	Flower				--
25	P-COUMARIC-ACID	Leaf				--
18	OLEIC-ACID	Seed	39425.0	52975.0	-0.5436146073153726	Wealth of India.
0	NONA-SACCHARIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
39	NIACIN	Root	3.4	31.0	-0.5575871529684362	--
0	NARINGENIN-4'-O-GLUCOSIDE	Flower				--
0	NARINGENIN-4'-O-BETA-D-GLUCOSIDE	Flower				--
3	MUCILAGE	Root	50000.0	350000.0	1.8163629857243206	--
3	MUCILAGE	Plant		210000.0	0.7288213596117523	--
3	MUCILAGE	Leaf	60000.0	157000.0	1.32247213063027	--
0	METHYL-PENTOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
3	MANNOSE	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	MANGANESE	Root	0.5	4.4	-0.49333327298005497	--
0	MALVALIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
65	MAGNESIUM	Root	559.0	5180.0	1.3932916970467093	--
0	LINOLENIC-ACID	Seed	3200.0	4300.0	-0.5047948093852286	Wealth of India.
27	LINOLEIC-ACID	Seed	67710.0	91000.0	-0.13813658130464232	Wealth of India.
20	LECITHIN	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LANOLIN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	L-RHAMNOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	L-RHAMNOSE	Leaf				Pakistan Encyclopedia Planta Medica. 1986.
0	L-ARABINOFURANAN	Root				--
0	L-ARABINAN	Plant				--
0	KAEMPFEROL-3-BETA-D-(6'-O-P-HYDROXYCINNAMOYL)-GLUCOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	KAEMPFEROL-3-O-GLUCOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
75	KAEMPFEROL	Leaf				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.
75	KAEMPFEROL	Root				--
1	ISOSCOPOLETIN	Root				--
1	ISOSCOPOLETIN	Shoot				--
22	ISOQUERCITRIN	Flower				--
22	ISOQUERCITRIN	Leaf				--
6	IRON	Root	12.0	115.0	-0.2745822990554713	--
0	HYPOLAETIN-8-O-BETA-D-GLUCOSIDE	Root		14.0		--
0	HYPOLAETIN-8-GENTIOBIOSIDE	Leaf	2500.0	4200.0		--
0	HYPOLAETIN-4'-O-METHYL-ETHER-8-O-BETA-D-GLUCOSIDE	Flower				--
0	HYPOLAETIN-4'-METHYL-ETHER-8-O-GLUCOSIDE-3'-SULPHATE	Leaf				--
0	HYDROXYCINNAMIC-ACID	Plant				Wealth of India.
0	HEXOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	HEXASACCHARIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
12	HERNIARIN	Shoot				--
12	HERNIARIN	Root				--
0	HEMICELLULOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
7	GLUCOSE	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	GLUCOSAN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	GLUCAN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	GALACTURONORHAMNOS E	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	GALACTURONO-RHAMNANS	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	GALACTURONIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	FIBER(DIETARY)	Root		523000.0	1.3604505714281423	--
0	FIBER(CRUDE)	Root		83000.0	-0.8363237735654434	--
15	FIBER	Root		83000.0	-0.11352696502722416	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
61	FERULIC-ACID	Root				--
61	FERULIC-ACID	Leaf				--
61	FERULIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
61	FERULIC-ACID	Flower				--
0	FAT	Seed	128000.0	172000.0	-0.49190584773158025	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	FAT	Root	540.0	5000.0	-0.596266738718786	--
2	ERUCIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	EO	Leaf		200.0	-0.99702714807754	Wealth of India.
0	EO	Flower		200.0	-0.41666386041507664	Wealth of India.
0	EO	Root	54.0	2000.0	-0.5605870943160192	--
0	DODECASACCHARIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	D-GLUCURONIC-ACID	Leaf				--
0	D-GLUCURONIC-ACID	Root				--
0	D-GLUCOSAMINES	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	D-GALACTURONIC-ACID	Leaf				--
0	D-GALACTURONIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	D-GALACTURONIC-ACID	Root				--
0	D-GALACTOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
57	COUMARIN	Root				--
57	COUMARIN	Shoot				--
2	COBALT	Root	0.4	3.3	-0.473581959958559	--
0	CICHORIN	Root				--
0	CICHORIN	Shoot				--
24	CHROMIUM	Root	0.2	1.5	-0.26097057892644915	--
20	CHOLINE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
77	CHLOROGENIC-ACID	Root				--
77	CHLOROGENIC-ACID	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
77	CHLOROGENIC-ACID	Flower				--
0	CARBOHYDRATES	Root	87156.0	807000.0	-0.2956796137192111	--
0	CALCIUM-PHOSPHATE	Plant				Pakistan Encyclopedia Planta Medica. 1986.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	CALCIUM-OXALATE	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.
28	CALCIUM	Root	881.0	8160.0	0.08292658679020891	--
102	CAFFEIC-ACID	Root				--
102	CAFFEIC-ACID	Flower				--
102	CAFFEIC-ACID	Leaf				--
6	BUTYRIC-ACID	Plant				Pakistan Encyclopedia Planta Medica. 1986.
14	BETAINE	Root		40000.0	2.8276326231219104	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
53	BETA-CAROTENE	Root				--
7	ASTRAGALIN	Flower				--
7	ASTRAGALIN	Leaf				--
0	ASPARAGINIC-ACID	Root				--
2	ASPARAGINE	Root	10000.0	20000.0	-1.2247448713915892	--
0	ASH	Root	8640.0	80000.0	0.35526479427075014	--
112	ASCORBIC-ACID	Seed		1640.0	0.6461153960063319	--
112	ASCORBIC-ACID	Root	177.0	1640.0	0.29152337636866393	--
0	ARABINOSE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
6	ARABINO GALACTAN	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	ANTHAEA-MUCILAGE	Root				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
5	ALUMINUM	Root	73.0	680.0	0.052378446056560675	--
0	ALTHEIN	Root		20000.0		--
0	ALTHAEA-MUCOPOLYSACCHARIDE	Root				--



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALTHAEA-MUCILAGE-POLYSACCHARIDE	Root				--
0	ALTHAEA-MUCILAGE-OL	Leaf		550.0		--
1	ALTHAEA-MUCILAGE-O	Root		2200.0		--
0	ALTHAEA-D-GLUCAN	Leaf				--
0	ALPHA-L-ARABINOFURANOSYL	Plant				--
3	ALANINE	Root				--
33	AESCULIN	Root				--
33	AESCULIN	Shoot				--
32	AESCULETIN	Root				--
32	AESCULETIN	Shoot				--
0	8-O-GENTIOBIOSIDE-HYPOLAETIN	Flower				--
0	8-HYDROXY-LUTEOLIN-8-BETA-GLUCOSIDE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	8-HYDROXY-LUTEOLIN-8-BETA-GENTIOBIOSIDE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	8-HYDROXY-DIOSMETIN-8-GLUCOSIDE	Plant				Pakistan Encyclopedia Planta Medica. 1986.
0	8-HYDROXY-3'-SULFO-8-O-BETA-D-GLUCOSIDE-DIOSMETIN	Leaf				--
0	4-HYDROXY-BENZOIC-ACID	Root				--
0	4-HYDROXY-BENZOIC-ACID	Flower				--
0	4-HYDROXY-BENZOIC-ACID	Leaf				--
0	4-AMINO-BUTYRIC-ACID	Root				--