

## Dr. Duke's Phytochemical and Ethnobotanical Databases

### Chemicals found in Cinchona spp

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
102	CAFFEIC-ACID	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
47	BETA-SITOSTEROL	Bark				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
40	EPICATECHIN	Bark				--
38	(-)-EPICATECHIN	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
32	QUININE	Bark	8000.0	40000.0	-1.0	--
23	QUINIDINE	Bark	200.0	40000.0		--
7	CINCHONINE	Bark	15000.0	80000.0		--
6	CINCHONIDINE	Bark	12500.0	80000.0	1.0	--
6	DIGIFERRUGINEOL	Tissue Culture				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
5	STARCH	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
5	CINCHOPHYLLAMINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
4	ARICINE	Plant				--
3	ALIZARIN-2-METHYL-ETHER	Tissue Culture				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
3	CINCHONAIN-IIB	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
3	HYDROQUINIDINE	Bark				--
3	3-ALPHA,17-BETA-CINCHOPHYLLINE	Leaf				Wealth of India.
3	3-ALPHA,17-ALPHA-CINCHOPHYLLINE	Leaf				Wealth of India.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	QUINOVIC-ACID	Bark	1000.0	15000.0		--
2	DIHYDROQUINIDINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
2	PURPURIN-1-METHYL-ETHER	Tissue Culture				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
2	QUINICINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	GALLO-TANNIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	10-METHOXYCINCHONAMINE	Stem				Wealth of India.
1	HYDROQUININE	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
1	QUINIC-ACID	Bark	50000.0	80000.0		--
0	DIHYDROQUININE	Leaf				Wealth of India.
0	ALPHA-QUINOVINE	Bark	5000.0	10000.0		--
0	QUINOVIC-ACID-BETA-6-DESOXY-D-GLUCOSIDE	Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUININIDINE	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	JAVANINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ASH	Seed		60000.0	0.3645374572544236	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

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0	CUPREINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	DICONQUININE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PHLOBAPHENE	Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ISOCINCHOPHYLLAMINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	CINCHONININE	Bark				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	DICINCHONINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	ALKALOIDS	Leaf		10000.0	0.062309440096893175	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PERICINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CATECHOL-TANNINS	Bark		80000.0		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	QUINOVOSE	Bark				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

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0	CUSCONINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	CINCHONAIN-IIA	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	ALKALOIDS	Bark	50000.0	160000.0	1.591072494711201	--
0	NORSOLORINIC-ACID	Bark				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	3-EPIQUINAMINE	Leaf				Wealth of India.
0	CUSCONIDINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	QUINAMINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	CINCHONAIN-ID	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	HYDROCINCHONIDINE	Plant				--
0	METHYLSUCCIRUBINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	WAX	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	CUSCAMINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	QUINACIMINE	Plant				--
0	CINCHONAIN-IC	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	HOMOCINCHONINE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SUCIRUBINE	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	CUSCAMIDINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PROTEIN	Seed		180000.0	-0.4785438804290316	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	CINCHONAIN-IB	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	FAT	Seed	5000.0	160000.0	-0.5551141401218788	--
0	CONQUINAMINE	Bark				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PROCYANIDIN-C-1	Plant				Chemical Constituents of Oriental Herbs (3 diff. books)
0	CINCHONAIN-IA	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	CATECHIN-TANNINS	Bark	30000.0	50000.0	-0.8626621856275073	--
0	EPIQUININE	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	TETRA-O-GALLOYL-BETA-D-GLUCOSE	Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	RESIN	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	CINCHOTINE	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	QUINOLIC-ACID-BETA-6-DESOXY-D-GLUCOSIDE	Bark				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	PROCYANIDIN-B-5	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	CINCHOLIC-ACID-BETA-D-QUINOVOSIDE	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	QUINOVIC-ACID-3-RHAMNOSIDE	Bark				Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
0	EPIQUINIDINE	Plant				--
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	QUINOVIN	Bark				--
0	CINCHOTANNIC-ACID	Plant				--
0	PROANTHOCYANIDIN-A-2	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	CINCHOFULVIC-ACID	Plant				--
0	EO	Bark		50.0	-0.960720063548411	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	BETA-QUINOVINE	Bark	5000.0	10000.0		--
0	EPIQUINAMINE	Bark				Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
0	QUINOVIC-ACID-BETA-D-GLUCOSIDE	Bark				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	QUINOVIC-ACID-BETA-D-QUINOVOSIDE	Bark				Chemical Constituents of Oriental Herbs (3 diff. books)
0	QUEBRACHOL	Bark				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	Refernce Citation
0	PARICINE	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.