

C URSOLIC-ACID

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*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Agrimonia eupatoria	Plant	6000	6000	-0.5090810752075852	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Arbutus unedo	Leaf	--	--		--
Arctostaphylos uva-ursi	Leaf	4000	7500	-0.24659009656320915	--
Arctostaphylos uva-ursi	Plant	--	--		--
Arctostaphylos uva-ursi	Shoot	--	--		--
Artocarpus heterophyllus	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Berberis vulgaris	Fruit	--	--		Jim Duke's personal files.
Catalpa bignonioides	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Catharanthus roseus	Leaf	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Chimaphila umbellata	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Chimaphila umbellata	Shoot	--	--		--
Chrysanthemum x morifolium	Flower	--	--		Wealth of India.
Cnicus benedictus	Plant	--	--		Jim Duke's personal files.
Cornus florida	Plant	--	--		--
Cornus mas	Flower	--	--		Grigorescu, E., Ionescu, A. P. 1976. Isolation of Ursolic Acid from Cornus mas (Cornaceae). Phytochemistry, 15: 1097.
Cornus mas	Shoot	--	--		Zorina, A. D., Matyukhina, L. G., Ryabinin, A. A. 1966. Triterpenes in Some Plant Species. Chem Nat Comp, 2(4): 291.
Cornus officinalis	Fruit	--	--		--
Cornus officinalis	Seed	--	--		--
Crataegus cuneata	Fruit	--	--		--
Crataegus laevigata	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Crataegus laevigata	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Crataegus laevigata	Shoot	--	--		--
Crataegus monogyna	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Crataegus monogyna	Inflorescence	--	--		--
Crataegus rhipidophylla	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Crataegus rhipidophylla	Shoot	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Cryptostegia grandifolia	Leaf	--	--		--
Duboisia myoporoides	Shoot	--	10	-0.7356690493616181	--
Duchesnea indica	Plant	--	1.6	-0.7954888884326422	--
Elaeagnus pungens	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Eriobotrya japonica	Leaf	13.7	955.6	-0.39428056659544786	--
Eucalyptus citriodora	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
Eucalyptus citriodora	Leaf	--	--		--
Eucalyptus citriodora	Root	--	67	1	--
Eucalyptus globulus	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Eucalyptus globulus	Wood	--	8		--
Eucalyptus grandis	Leaf	--	6000	-0.28044128308120286	--
Forsythia suspensa	Fruit	--	--		--
Gaultheria fragrantissima	Leaf	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Gaultheria procumbens	Leaf	--	--		--
Glechoma hederacea	Plant	166	166	-0.787639221105655	Chemical Constituents of Oriental Herbs (3 diff. books)
Harpagophytum procumbens	Root	--	--		--
Harpagophytum procumbens	Tuber	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Helichrysum angustifolium	Flower	--	--		--
Helichrysum angustifolium	Stem	--	--		--
Holarrhena pubescens	Leaf	--	--		--
Humulus lupulus	Stem	--	--		--
Hyptis capitata	Shoot	--	--		Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
Hyssopus officinalis	Plant	4900	4900	-0.5616031801935085	--
Ilex paraguariensis	Leaf	--	--		--
Lavandula angustifolia	Leaf	7000	7000	-0.2578738254025404	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Lavandula latifolia	Leaf	10000	19000	0.012935666741409262	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Leonurus cardiaca	Plant	--	--		--
Ligustrum japonicum	Fruit	--	--		--
Ligustrum lucidum	Plant	--	--		--
Ligustrum lucidum	Fruit	--	0.3	-1.0690174765081477	--
Limonia acidissima	Wood	--	--		Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Lycopus europeus	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Malus domestica	Fruit Epidermis	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Malus domestica	Pericarp	--	--		--
Malus domestica	Wax	--	--		--
Marrubium vulgare	Plant	1200	1200	-0.7382684424188871	--
Marrubium vulgare	Flower	--	--		--
Marrubium vulgare	Leaf	--	1000	-0.39327857147451517	--
Melaleuca leucadendra	Plant	--	--		--
Melissa officinalis	Plant	--	--		--
Mentha spicata	Leaf	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Mentha spicata	Shoot	--	--		--
Mentha spicata	Plant	--	--		--
Mentha x rotundifolia	Tissue Culture	--	--		Jim Duke's personal files.
Monarda didyma	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Morinda citrifolia	Leaf	--	--		--
Nepeta cataria	Shoot	10300	10300	1.8174623226218731	--
Nepeta cataria	Plant	--	--		--
Nerium oleander	Plant	43000	43000	1.2575715470462003	--
Ocimum basilicum	Flower	--	1740		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Ocimum basilicum	Leaf	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Ocimum basilicum	Sprout Seedling --		63		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Ocimum basilicum	Stem	--	845	0.7881966335751702	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Ocimum canum	Shoot	--	--		=ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp
Ocimum tenuiflorum	Inflorescence	10	30		--
Ocimum tenuiflorum	Leaf	2520	4780	-0.3079735814491711	--
Ocimum tenuiflorum	Stem	20	100	-1.1136867413673455	--
Ocimum tenuiflorum	Plant	--	--		--
Origanum majorana	Plant	500	2100	-0.695295811066768	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Origanum vulgare	Plant	3100	3100	-0.6475484428977467	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Plantago asiatica	Plant	--	--		--
Plantago major	Plant	--	--		--
Plectranthus amboinicus	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
Prosopis glandulosa	Shoot	--	145	-0.7021731567262663	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
Prunella vulgaris	Plant	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Prunella vulgaris	Shoot	211	4400	0.35356775559538145	--
Prunus africana	Bark	--	28900		--
Prunus cerasus	Fruit	--	--		--
Prunus laurocerasus	Leaf	10000	10000	-0.19017145236655297	--
Prunus persica	Leaf	--	--		--
Prunus serotina	Leaf	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
Psidium guajava	Leaf	--	--		--
Psidium guajava	Fruit	--	--		--
Punica granatum	Fruit	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Punica granatum	Leaf	--	4500	-0.31429246959919654	--
Punica granatum	Flower	--	--		--
Punica granatum	Pericarp	--	6000		Hegnauer, R. 1962-1997. Chemotaxonomie der Pflanzen, Bde 1-11. Birkhauser Verlag Basel, Boston, Berlin.
Punica granatum	Seed	--	--		--
Pyrus communis	Fruit	--	--		--
Rhododendron dauricum	Plant	--	--		--
Rhododendron ferrugineum	Leaf	--	--		--
Rhododendron ponticum	Leaf	--	--		--
Rosmarinus officinalis	Plant	28000	41000	1.1620768107081578	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosmarinus officinalis	Shoot	20	20	-0.7331878721293699	--
Rosmarinus officinalis	Leaf	28000	192000	3.917105845150017	--
Rubus fruticosus	Plant	--	--		--
Salvia officinalis	Leaf	1255	1300	-0.38650833417091646	--
Salvia officinalis	Stem	200	200	-0.8584003823146588	--
Salvia officinalis	Root	--	--		--
Salvia sclarea	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Salvia triloba	Plant	74500	74500	2.761613644370369	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Sambucus nigra	Bark	--	--		--
Sambucus nigra	Flower	--	--		--
Sambucus nigra	Leaf	--	--		--
Sanguisorba officinalis	Plant	--	--		--
Satureja hortensis	Leaf	1700	1700	-0.37748135109945147	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Satureja hortensis	Stem	1000	1000	1.1838904901068346	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Satureja montana	Plant	16000	16000	-0.03160739351737296	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Satureja montana	Leaf	--	16000	-0.054766706294578145	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Sorbus aucubaria	Fruit	--	--		--
Syringa vulgaris	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Syzygium claviflorum	Leaf	--	20	-0.41539467999960444	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
Teucrium chamaedrys	Plant	--	--		Abstract (See species file)
Teucrium polium	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Teucrium scordium	Plant	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Teucrium scorodonia	Leaf	3000	3000	-0.3481436561171903	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Thevetia peruviana	Leaf	1500	1500	-0.38199484263518396	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Thymus serpyllum	Plant	7500	9100	-0.3610642338836193	--
Thymus vulgaris	Plant	15000	18800	0.1020852373558865	--
Uncaria tomentosa	Plant	--	--		--
Urtica dioica	Root	--	15	-1	Jim Duke's personal files.
Vaccinium corymbosum	Plant	--	--		--
Vaccinium macrocarpon	Fruit	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vaccinium myrtillus	Fruit	2500	2500	-0.2673024778	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Vaccinium myrtillus	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Vaccinium vitis-idaea	Fruit	7500	7500	1.3363199543081485	--
Verbena officinalis	Plant	--	--		--
Viburnum opulus	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Viburnum prunifolium	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Viburnum prunifolium	Root Bark	--	--		--
Vinca minor	Leaf	1400	37000	0.41914990495733373	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Vinca minor	Plant	2400	13400	-0.15575055075682817	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
Vitis vinifera	Fruit	--	--		--
Zizyphus jujuba	Plant	--	--		--