

**Dr. Duke's Phytochemical and Ethnobotanical Database**

**List of Plants for URSOLIC-ACID**

<b>Plant</b>	<b>Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference</b>
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.
Chimaphila umbellata	Shoot	--	--		--
Chrysanthemum x morifolium	Flower	--	--		Wealth of India.
Cnicus benedictus	Plant	--	--		Jim Duke's personal files.
Cornus florida	Plant	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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	--	--		--
Cryptostegia grandifolia	Leaf	--	--		--
Duboisia myoporoides	Shoot	--	10	-0.7356690493616181	--
Duchesnea indica	Plant	--	1.6	-0.7954888884326422	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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	--	--		--
Helichrysum angustifolium	Flower	--	--		--
Helichrysum angustifolium	Stem	--	--		--
Holarrhena pubescens	Leaf	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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	--	--		--
Malus domestica	Pericarp	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
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.
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.



Plant	Part	Low PPM	High PPM	StdDev	Reference
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	--
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	--	--		--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Urtica dioica	Root	--	15	-1	Jim Duke's personal files.
Vaccinium corymbosum	Plant	--	--		--
Vaccinium macrocarpon	Fruit	--	--		--
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	--	--		--

<b>Plant</b>	<b>Part</b>	<b>Low PPM</b>	<b>High PPM</b>	<b>StdDev</b>	<b>Reference</b>
Zizyphus jujuba	Plant	--	--		--