

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Withania somnifera*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALKALOIDS	Root	1300.0	4300.0	-0.7113171238727722	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
5	WITHANOLIDE-D	Leaf	500.0	3000.0		--
15	WITHAFERIN-A	Leaf	400.0	8600.0		--
47	BETA-SITOSTEROL	Root	4.0	200.0	-0.27101953487278646	--
0	WITHAOXYLACTONE	Plant	0.3	0.6		--
0	WITHASOMNIFEROL-C	Root		6.0		--
0	24-ETHYLCHOLEST-5-EN-3-BETA-OL	Plant				--
1	HYDROXYPROLINE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	5-ALPHA-20-ALPHA-(R)-DIHYDROXY-6-ALPHA-7-ALPHA-EPOXY-1-OXOWITHA-2,24-DIENOLIDE	Root		180.0		--
0	WITHANOLIDE H	Leaf				--
87	RUTIN	Leaf				--
0	WITHANIC-ACID	Plant				--
0	ANAFERINE	Root				Willaman, J. J., Li, H. L. 1970. Alkaloid-Bearing Plants and their Contained Alkaloids. 1957-1968. Lloydia 33S: 1-286.
0	PSEUDOTROPANAOL	Root				Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. Zulu Medicinal Plants. An inventory. University of Natal Press, Pietermaritzburg. 450 pp.
0	14-HYDROXY-27-DEOXYWITHAFERIN A	Leaf		130.0		--
5	WITHANOLIDE-D	Root				--
0	WITHANOLIDE WS-1	Seed		23.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	4-BETA-20-ALPHA-(R)-DIHYDROXY-1-OXO-5-BETA-6-BETA-EPOXYWITH-2-ENOLIDE	Leaf		500.0		--
0	SOMNINE	Plant				--
0	5,24-STIGMASTADIEN-3-OL	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHASOMNIFEROL-B	Root		4.0		--
0	ISOCHLOROGENIC-ACID-C	Leaf				--
0	HENTRIACONTANE	Root				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	2,4-METHYLENE-CHOLESTEROL	Tissue Culture				--
0	WITHANOLIDE F	Leaf				--
1	4-O-CAFFEYLQUINIC-ACID	Leaf				--
0	WITHANANINE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ALPHA-WITHANANINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	HYGRINE	Root				--
15	WITHAFERIN-A	Root				--
0	WITHALACTONE	Plant		0.3		--
0	5-DEHYDROXYWITHANOLIDE	Shoot				--
0	3-ALPHA-TIGLOYLOXYTROPANE	Root				--
0	SOMNIFERININE	Plant				--
0	5,20ALPHA-(R)-DIHYDROXY-6ALPHA,7ALPHA-EPOXY-1-OXO-(5ALPHA)-WITHA-2,24-DIENOLIDE	Plant				--
0	WITHASOMNIFEROL-A	Root		1.4		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	CAMPESTEROL	Tissue Culture				--
2	DULCITOL	Root				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	2,3-DEHYDROSOMNIFERICIN	Plant		0.1		--
5	4-BETA-HYDROXYWITHANOLIDE	Leaf				--
1	QUINIC-ACID	Leaf				--
0	WITHAFERINS	Leaf				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	3-TIGLOYLHYDROXYTROPANINE	Root				Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. Zulu Medicinal Plants. An inventory. University of Natal Press, Pietermaritzburg. 450 pp.
15	WITHAFERIN-A	Shoot				--
12	STIGMASTEROL	Plant				--
12	STIGMASTEROL	Tissue Culture				--
176	QUERCETIN	Leaf				--
2	SOMNIFERINE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	3ALPHA-TIGLOYOXYTROPANE	Root				--
0	WITHANOLIDE R	Leaf				--
0	WITHASOMNIFERANOLIDE	Stem Bark		220.0		--
0	27-HYDROXYWITHANOLIDE-D	Leaf				--
2	CYSTINE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	SOMNIROL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	7-BETA-HYDROXYWITHANOLIDE	Leaf				--
0	QUERCETIN-3-RUTINOSIDE-7-GLUCOSIDE	Leaf				--
0	ALKALOIDS	Leaf		900.0	-0.5491749699367219	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	WITHASONMIDIENONE	Plant		0.24		--
15	WITHAFERIN-A	Plant				--
0	SOMNIWITHANOLIDE	Stem Bark		1500.0		--
0	WITHAFERINE	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
8	STEARIC-ACID	Plant				--
0	4-DEOXYPHYSALOLACTONE	Shoot		80.0		--
0	SOMNIFERIANINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	3-TROPYLTIGLOATE	Root				--
0	WITHANOLIDE Q	Leaf				--
0	WITHASOMINE	Root				--
13	CYSTEINE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	SITOINDOSIDE-VIII	Root		24.0		--
0	2-3-DIHYDROWITHANOLIDE	Leaf				--
0	6,7-EPOXY-5,27-DIHYDROXY-1-OXO-2,24-WITHADIENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	WITHASOMNINE	Root				--
7	WITHAFERIN	Leaf				--
0	SOMNIFERICIN	Plant		0.06		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SOMINONE	Plant		0.08		--
27	LINOLEIC-ACID	Seed Oil		600000.0	0.8214578016140522	--
44	SCOPOLETIN	Plant				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	27-HYDROXYWITHANOLIDE-D	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHANOLIDE P	Leaf				--
0	WITHANOLIDE-S	Leaf				--
0	WITHANOLIDE-O	Leaf				--
0	CUSCOHYGRINE	Root				--
4	SITOINDOSIDE-IX	Root				--
0	WITHANICANDRIN	Leaf				--
0	5ALPHA,17ALPHA-(R)-DIHYROXY-6ALPHA,7ALPHA-EPOXY-WITHA-2,24-DIENOLIDE	Plant				--
3	WITHASOMNINE	Plant				--
1	WITHACNISTIN	Leaf				--
0	SOMNIFERAWITHANOLIDE	Stem Bark		150.0		--
3	VISAMINE	Root				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	SOMINOLIDE	Plant		0.05		--
27	LINOLEIC-ACID	Plant				--
0	PSEUDOWITHANINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	24-METHYLCHOLESTA-5,24-DIEN-3BETA-OL	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHANOLIDE M	Leaf				--
0	WITHANOLIDE-G	Shoot				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WITHANOLIDE-N	Leaf				--
20	CHOLINE	Root				--
3	N-HENTRIACONTANE	Plant				--
0	WITHAFERINOL A	Plant				--
0	5,6-EPOXY-4,20-DIHYDROXY-1-OXO-24-WITHENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHASOMNIFERIN A	Shoot				--
0	20-28-DIHYDROXY-1-OXOWITHA-2-5-8(14)-24-TETRAENOLIDE	Plant				--
0	SOMNIFERANOLIDE	Stem Bark		1400.0		--
1	TROPINE	Root				--
47	BETA-SITOSTEROL	Leaf				--
0	KNO3	Plant		6000.0		--
0	PSEUDOTROPINE	Root				--
0	QURESIMINE-B	Plant		0.1		--
0	17-HYDROXYWITHANOLIDE-D	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHANOLIDE L	Leaf				--
3	WITHANOLIDE-E	Shoot				--
0	WITHANOLIDE-G	Leaf				--
77	CHLOROGENIC-ACID	Leaf				--
0	IPURANOL	Plant				--
0	WITHAFERINIL	Plant				--
0	5,6-EPOXY-4,20-DIHYDROXY-1-OXO-2-WITHENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHANONE	Leaf				--
0	5-BETA-6-BETA-EPOXY-14-17-20-TRIHYDROXY-1-OXOWITHA-2-24-DIENOLIDE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	SUCROSE	Root		1000.0	-1.2514078712678915	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	24-ETHYLIDENE-CHOLESTEROL	Tissue Culture				--
21	NICOTINE	Root				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	QURESIMINE-A	Plant		0.2		--
0	14-HYDROXYWITHANOLIDE-D	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHANOLIDE K	Leaf				--
47	BETA-SITOSTEROL	Tissue Culture				--
0	CHAMASE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	(-)-ANAFERINE	Root				--
0	DIHYDROWITHAFERIN A	Leaf				--
3	WITHANOLIDE-E	Leaf				--
0	WITHANONE	Shoot				--
0	4-BETA-20-ALPHA-DIHYDROXY-1-OXO-5-BETA-6-BETA-EPOXYWITHA-2-24-DIENOLIDE	Leaf				--
5	STARCH	Root				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	5,6-EPOXY-4,17-DIHYDROXY-1-OXO-2,24-WITHADIENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	24-METHYLCHOLESTA-5-24(25)-DIEN-3-BETA-OL	Plant				--
5	ISOPELLETIERINE	Root				--
5	DAUCOSTEROL	Root		2.0	-0.5409061526656509	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	14,20R,27-TRIHIDROXY-1-OXO-3,5,24-WITHATRIENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHANOLIDE J	Leaf				--
4	SITOINDOSIDE-X	Root				--
0	WITHANIOL	Root		800.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	TROPANAOL	Root				Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. Zulu Medicinal Plants. An inventory. University of Natal Press, Pietermaritzburg. 450 pp.
0	27-DEOXYWITHAFERIN	Leaf				--
5	WITHANOLIDE-D	Shoot				--
0	17-ALPHA-HYDROXYWITHANOLIDE	Leaf				--
0	5-BETA-6-BETA-EPOXY-4-14-17-20-TETRAHYDROXY-1-OXOWITHA-2-24-DIELOLIDE	Plant				--
0	SOMNITOL	Plant				--
0	5,6-EPOXY-20-HYDROXY-1,4-DIOXO-2-WITHENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHASOMNILIDE	Stem Bark		270.0		--
0	24-ETHYLCHOLESTA-5-(Z)-24(28)-DIEN-3-BETA-OL	Plant				--
0	IPURANOL	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	5-ALPHA-27-HYDROXY-6-ALPHA-7-ALPHA-EPOXY-1-OXOWITHA-2,24-DIENOLIDE	Root		5.0		--
0	1,3,20-TRIHIDROXY-5,24-WITHADIENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	WITHANOLIDE I	Shoot				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	SITOINDOSIDE-VII	Root		76.0		--
0	WITHANINE	Root				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ANAHYGRINE	Root				--
4	SITOINDOSIDES	Root				Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. Zulu Medicinal Plants. An inventory. University of Natal Press, Pietermaritzburg. 450 pp.
0	2-3-DIHYDROWITHAFERIN	Leaf		133.0		--
5	WITHANOLIDE-D	Plant				--
0	14-ALPHA-HYDROXYWITHANOLIDE	Leaf				--
0	4-BETA-HYDROXY-1-OXO-5-BETA-6-BETA-EPOXYWITH-2-ENOLIDE	Leaf		30.0		--
0	SOMNISOL	Plant				CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	5,6-EPOXY-20-HYDROXY-1,4-DIOXO-2,24-WITHADIENOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.