

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Brassica oleracea var. italica

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
28	CALCIUM	Leaf	360.0	54247.0	2.4468006382605774	--
14	SULFUR	Leaf	1200.0	11800.0	1.6302603378370644	ACTA AGRIC SCAND SUPPL 22: 1980
15	ALPHA-LINOLENIC-ACID	Leaf	1290.0	13855.0	1.243183883058032	USDA's Ag Handbook 8 and sequelae)
1	MERCURY	Leaf	0.002	0.09	1.1722789664445759	ACTA AGRIC SCAND SUPPL 22: 1980
11	PANTOTHENIC-ACID	Leaf	5.35	63.0	0.8524389937224381	USDA's Ag Handbook 8 and sequelae)
4	PHOSPHORUS	Leaf	644.0	9090.0	0.7577587277969241	--
2	MOLYBDENUM	Leaf	0.1	3.76	0.6801012829363977	--
12	COPPER	Leaf	0.68	52.0	0.6699011255650867	--
4	BORON	Leaf	1.0	85.0	0.6469238451071857	--
4	LYSINE	Leaf	1410.0	15143.0	0.5181729835111131	USDA's Ag Handbook 8 and sequelae)
112	ASCORBIC-ACID	Leaf	911.0	10360.0	0.5173558895778465	--
15	METHIONINE	Leaf	340.0	3652.0	0.46965125289987986	USDA's Ag Handbook 8 and sequelae)
32	ALPHA-TOCOPHEROL	Leaf	7.0	439.0	0.35927304562664447	--
14	POTASSIUM	Leaf	3178.0	37270.0	0.3058332790917791	--
3	VALINE	Leaf	1280.0	13747.0	0.29552238675671566	USDA's Ag Handbook 8 and sequelae)
77	ZINC	Leaf	4.0	118.0	0.19739995136190341	--
8	GLUTAMIC-ACID	Leaf	3750.0	40275.0	0.12712766718145815	USDA's Ag Handbook 8 and sequelae)
29	TRYPTOPHAN	Leaf	290.0	3115.0	0.10979300838520059	USDA's Ag Handbook 8 and sequelae)
61	FERULIC-ACID	Leaf		13.0	0.08918222301645602	--
3	ALANINE	Leaf	1180.0	12673.0	0.017867252591863454	USDA's Ag Handbook 8 and sequelae)
1	SERINE	Leaf	1000.0	10740.0	-0.003085924608790074	USDA's Ag Handbook 8 and sequelae)
7	HISTIDINE	Leaf	500.0	5370.0	-0.0031655528062669996	USDA's Ag Handbook 8 and sequelae)
4	THREONINE	Leaf	910.0	9773.0	-0.005488458413534491	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Leaf	0.6	8.0	-0.06349209547044472	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	RIBOFLAVIN	Leaf	1.1	21.0	-0.07942432526480918	--
3	ISOLEUCINE	Leaf	1090.0	11707.0	-0.09196747371544084	USDA's Ag Handbook 8 and sequelae)
1	SODIUM	Leaf	252.0	3091.0	-0.09830203577402047	USDA's Ag Handbook 8 and sequelae)
8	STEARIC-ACID	Leaf	70.0	752.0	-0.13186141525885503	USDA's Ag Handbook 8 and sequelae)
2	MOLYBDENUM	Stem		1.76	-0.13934558811150258	--
4	SILICON	Leaf	1.0	90.0	-0.14550202645318341	ACTA AGRIC SCAND SUPPL 22: 1980
15	FOLACIN	Leaf	0.64	8.4	-0.15226470429048047	USDA's Ag Handbook 8 and sequelae)
39	NIACIN	Leaf	6.4	83.0	-0.17638140110322484	--
14	ARGININE	Leaf	1450.0	15573.0	-0.25040545078848814	USDA's Ag Handbook 8 and sequelae)
3	ASPARTIC-ACID	Leaf	2130.0	22876.0	-0.262328714251028	USDA's Ag Handbook 8 and sequelae)
3	NICKEL	Leaf	0.3	7.0	-0.28467312579555515	ACTA AGRIC SCAND SUPPL 22: 1980
13	PALMITIC-ACID	Leaf	470.0	5048.0	-0.2927982427753776	USDA's Ag Handbook 8 and sequelae)
2	COBALT	Leaf	0.02	0.6	-0.29531921745391343	ACTA AGRIC SCAND SUPPL 22: 1980
18	OLEIC-ACID	Leaf	240.0	2578.0	-0.3066324749217592	USDA's Ag Handbook 8 and sequelae)
7	PHENYLALANINE	Leaf	840.0	9022.0	-0.32366072893862124	USDA's Ag Handbook 8 and sequelae)
14	MANGANESE	Leaf	2.0	80.0	-0.32688920745367256	--
8	TYROSINE	Leaf	630.0	6766.0	-0.34477094479123366	USDA's Ag Handbook 8 and sequelae)
25	P-COUMARIC-ACID	Leaf		13.0	-0.3465642412720655	--
2	LEUCINE	Leaf	1310.0	14069.0	-0.3764770761728601	USDA's Ag Handbook 8 and sequelae)
60	SELENIUM	Leaf	0.002	0.024	-0.3807027917986485	--
65	MAGNESIUM	Leaf	214.0	3072.0	-0.406886321355332	USDA's Ag Handbook 8 and sequelae)
60	SELENIUM	Stem		0.015	-0.42886426089167784	--
7	SALICYLATES	Leaf	6.0	65.0	-0.435551873962273	--
15	FIBER	Leaf	10760.0	122866.0	-0.47818554218157117	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
9	SINAPIC-ACID	Leaf		40.0	-0.5050096614914733	--
53	BETA-CAROTENE	Leaf	9.0	138.0	-0.5369565297726103	--
24	CHROMIUM	Leaf	0.005	0.18	-0.6314530785674829	ACTA AGRIC SCAND SUPPL 22: 1980
6	IRON	Leaf	8.0	109.0	-0.6442917506016965	--
2	CYSTINE	Leaf	200.0	2148.0	-0.6472110127615397	USDA's Ag Handbook 8 and sequelae)
27	LINOLEIC-ACID	Leaf	380.0	4081.0	-0.6928297779549968	USDA's Ag Handbook 8 and sequelae)
102	CAFFEIC-ACID	Leaf		8.0	-0.7148173591555008	--
4	BORON	Stem		21.0	-0.7419113414039952	--
5	ALUMINUM	Leaf	1.0	27.0	-0.7515974845433717	ACTA AGRIC SCAND SUPPL 22: 1980
3	CADMIUM	Leaf	0.01	0.18	-0.7863999904697607	ACTA AGRIC SCAND SUPPL 22: 1980
2	ARSENIC	Leaf		0.01	-0.8114109228193096	ACTA AGRIC SCAND SUPPL 22: 1980
1	ALPHA-LIPOIC-ACID	Plant	95.0	940.0	-1.0	--
5	PHYLLUQUINONE	Leaf		1.79	-1.3371909672181328	--
32	INDOLE-3-CARBINOL	Leaf				Stitt, Paul. Why George should eat broccoli.
7	FUMARIC-ACID	Plant				Jim Duke's personal files.
176	QUERCETIN	Leaf				Stitt, Paul. Why George should eat broccoli.
15	MALIC-ACID	Plant				Jim Duke's personal files.
3	INDOLE-3-ACETONITRILE	Leaf				Stitt, Paul. Why George should eat broccoli.
2	NONACOSANE	Leaf				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
3	ACETONE	Leaf		500.0		Jim Duke's personal files.
1	PROGOITRIN	Leaf		0.0		--
23	CITRIC-ACID	Plant				Jim Duke's personal files.
1	4-HYDROXY-GLUCOBRASSICIN	Leaf	3.0	325.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ACETONE	Root		800.0		--
18	CINNAMIC-ACID	Leaf				Stitt, Paul. Why George should eat broccoli.
5	SULFORAPHANE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
13	P-HYDROXY-BENZOIC-ACID	Leaf				Stitt, Paul. Why George should eat broccoli.
2	TRANS-FERULIC-ACID	Leaf				Stitt, Paul. Why George should eat broccoli.
2	PHYTOSTEROLS	Plant				--
7	SUCCINIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
1	NEOGLUCOBRASSICIN	Leaf				Jim Duke's personal files.
24	VANILLIC-ACID	Plant				Stitt, Paul. Why George should eat broccoli.
9	PHYTIC-ACID	Leaf				Stitt, Paul. Why George should eat broccoli.
21	CHLOROPHYLL	Leaf				Stitt, Paul. Why George should eat broccoli.
12	STIGMASTEROL	Plant				Stitt, Paul. Why George should eat broccoli.
1	HEXYL-ACETATE	Plant				Jim Duke's personal files.
34	SALICYLIC-ACID	Leaf				Stitt, Paul. Why George should eat broccoli.
24	ETHANOL	Plant				Jim Duke's personal files.
77	CHLOROGENIC-ACID	Leaf				Stitt, Paul. Why George should eat broccoli.
2	DIMETHYL-DISULFIDE	Plant				Jim Duke's personal files.
5	PHYLLOQUINONE	Inflorescence		0.31		--
10	SQUALENE	Plant				Stitt, Paul. Why George should eat broccoli.
1	GLUCORAPHANIN	Leaf	255.0	8990.0		--
9	BETA-AMYRIN	Bud				Jim Duke's personal files.
87	RUTIN	Leaf				Stitt, Paul. Why George should eat broccoli.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
75	KAEMPFEROL	Leaf				Stitt, Paul. Why George should eat broccoli.
7	ALPHA-CAROTENE	Plant				Jim Duke's personal files.
3	PHENETHYL-ISOTHIOCYANATE	Leaf				Stitt, Paul. Why George should eat broccoli.
1	GLUCONASTURTIN	Leaf	0.0	145.0		--
10	ALPHA-AMYRIN	Bud	5.0	30.0		Jim Duke's personal files.
2	METHANOL	Plant				Jim Duke's personal files.
2	BETA-CRYPTOXANTHIN	Plant				Jim Duke's personal files.
1	TRIACONTAN-1-OL	Leaf				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
47	BETA-SITOSTEROL	Plant				Stitt, Paul. Why George should eat broccoli.
1	GLUCOIBERIN	Leaf	0.0	248.0		--
1	QUINIC-ACID	Leaf				Jim Duke's personal files.
7	SINIGRIN	Plant				Stitt, Paul. Why George should eat broccoli.
1	GLUCOBRASSICIN	Leaf	30.0	580.0		--
16	ALLYL-ISOTHIOCYANATE	Leaf				Stitt, Paul. Why George should eat broccoli.
44	QUERCITRIN	Leaf				Stitt, Paul. Why George should eat broccoli.