

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Panax quinquefolius*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	24-METHYLENE-CYCLOARTANOL	Seed Oil	--	--		
16	ACETIC-ACID	Plant	126	126	1.414181220491693	
11	ADENINE	Plant	--	--		
28	ADENOSINE	Plant	--	--		
3	ALANINE	Plant	209	2250	-1.5644343500261684	
3	ALPHA-CURCUMENE	Root Essent. Oil	1626	8677	-1	
2	ALPHA-HUMULENE	Plant	--	--		
3	ALPHA-SELINENE	Plant	--	--		
5	ALUMINUM	Plant	24	285	-0.19024226653522344	
1	AMYLASE	Plant	--	--		
14	ARGININE	Plant	11530	17615	1.003029083943788	
2	ARSENIC	Plant	0.25	0.44	-0.4279845874681766	
112	ASCORBIC-ACID	Plant	39	39	-0.5845301492267876	
2	ASPARAGINE	Plant	--	--		
3	ASPARTIC-ACID	Plant	1265	4310	-1.3901518792841547	
20	BENZOIC-ACID	Plant	--	--		
9	BETA-AMYRIN	Seed Oil	--	--		
6	BETA-BISABOLENE	Root Essent. Oil	6251	58670	1.706312778237975	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	BETA-ELEMENE	Plant	--	--		
2	BETA-SANTALENE	Plant	--	--		
3	BETA-SELINENE	Plant	--	--		
47	BETA-SITOSTEROL	Plant	--	--		
47	BETA-SITOSTEROL	Root	--	--		
4	BIOTIN	Plant	1	9	1	
4	BORON	Plant	24	96	0.13904887033764624	
28	CALCIUM	Plant	2340	10800	-0.29837191904081456	
2	CAMPESTEROL	Plant	--	--		
1	CAPROIC-ACID	Root Essent. Oil	--	28600		
31	CARYOPHYLLENE	Plant	--	--		
31	CARYOPHYLLENE	Root Essent. Oil	--	8670	-1	
1	CHOLESTEROL	Seed Oil	--	--		
20	CHOLINE	Plant	1000	2000	-1.1769646985527404	
18	CINNAMIC-ACID	Plant	--	--		
23	CITRIC-ACID	Plant	3000	3000	-0.5186178992564134	
2	COBALT	Plant	0.06	0.44	-0.46303973466040793	
12	COPPER	Plant	6	13	-0.11258700446602109	
7	CYCLOARTENOL	Seed Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	CYSTEINE	Plant	200	200		
2	CYSTINE	Plant	108	108	-1.1190679849671816	
1	D-GLUCOSE	Plant	5340	15000		
1	DEXTROSE	Plant	--	--		
2	ELEMOL	Root Essent. Oil	2959	14637		
40	ESCIN	Plant	--	--		
3	ESTRADIOL	Plant	--	--		
8	ESTRONE	Plant	--	--		
61	FERULIC-ACID	Plant	--	--		
15	FIBER	Plant	59000	245000	0.16408539512716985	
15	FOLACIN	Plant	--	68	1.6046860210830616	
23	FOLIC-ACID	Plant	--	68	1.386195235089137	
13	FORMIC-ACID	Plant	--	--		
8	FRUCTOSE	Tissue Culture	--	--		
8	FRUCTOSE	Root	--	3400	-0.5216566939988194	
7	FUMARIC-ACID	Plant	--	--		
1	GALACTOSE	Plant	--	--		
1	GALACTOSE	Root	--	--		
2	GERMACRENE-D	Plant	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	GINSENIN	Plant	--	--		
4	GINSENOSIDE-R-O	Plant	--	--		
4	GINSENOSIDE-R-O	Root	700	1000	-1	
4	GINSENOSIDE-R-O	Tissue Culture	--	--		
4	GINSENOSIDE-R-O	Leaf	--	--		
4	GINSENOSIDE-R-O	Rhizome	--	--		
1	GINSENOSIDE-RB	Plant	--	--		
14	GINSENOSIDE-RB-1	Plant	--	1480		
14	GINSENOSIDE-RB-1	Root	270	20900	-1	
14	GINSENOSIDE-RB-1	Rhizome	--	--		
14	GINSENOSIDE-RB-1	Leaf	1300	2900	-1	
14	GINSENOSIDE-RB-1	Tissue Culture	--	--		
8	GINSENOSIDE-RB-2	Plant	--	43		
8	GINSENOSIDE-RB-2	Shoot	--	1050	-1	
8	GINSENOSIDE-RB-2	Root	200	1000	-1	
8	GINSENOSIDE-RB-2	Rhizome	--	--		
8	GINSENOSIDE-RB-2	Tissue Culture	--	--		
8	GINSENOSIDE-RB-2	Leaf	4200	9300	-1	
2	GINSENOSIDE-RB-3	Shoot	--	1000		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	GINSENOSIDE-RB-3	Root	--	300	1	
2	GINSENOSIDE-RB-3	Leaf	--	--		
6	GINSENOSIDE-RC	Plant	--	--		
6	GINSENOSIDE-RC	Root	630	3100	-1	
6	GINSENOSIDE-RC	Rhizome	--	--		
6	GINSENOSIDE-RC	Tissue Culture	--	--		
6	GINSENOSIDE-RC	Leaf	2200	3900	-1	
3	GINSENOSIDE-RD	Plant	--	15		
3	GINSENOSIDE-RD	Root	950	7700	-1	
3	GINSENOSIDE-RD	Rhizome	--	--		
3	GINSENOSIDE-RD	Shoot	--	1600	-1	
3	GINSENOSIDE-RD	Tissue Culture	--	--		
3	GINSENOSIDE-RD	Leaf	10000	22900	-1	
5	GINSENOSIDE-RE	Plant	--	1450		
5	GINSENOSIDE-RE	Root	200	13800	-1	
5	GINSENOSIDE-RE	Shoot	--	200	-1	
5	GINSENOSIDE-RE	Tissue Culture	--	--		
5	GINSENOSIDE-RE	Leaf	12600	17800	-1	
4	GINSENOSIDE-RF	Plant	--	25		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	GINSENOSIDE-RF	Tissue Culture	--	--		
4	GINSENOSIDE-RF	Leaf	--	--		
4	GINSENOSIDE-RF	Root	--	--		
1	GINSENOSIDE-RG	Plant	--	--		
1	GINSENOSIDE-RG	Root	--	--		
13	GINSENOSIDE-RG-1	Plant	--	48		
13	GINSENOSIDE-RG-1	Tissue Culture	--	--		
13	GINSENOSIDE-RG-1	Rhizome	--	--		
13	GINSENOSIDE-RG-1	Shoot	820	1000	-1	
13	GINSENOSIDE-RG-1	Leaf	2200	3500	-1	
13	GINSENOSIDE-RG-1	Root	300	8600	-1	
3	GINSENOSIDE-RG-2	Plant	--	50		
3	GINSENOSIDE-RG-2	Root	--	80	-1	
3	GINSENOSIDE-RG-2	Leaf	--	--		
2	GINSENOSIDE-RG-3	Plant	--	32		
2	GINSENOSIDE-RG-3	Root	--	--		
2	GINSENOSIDE-RH1	Rhizome	--	9800		
2	GINSENOSIDE-RH1	Plant	--	20		
2	GINSENOSIDE-RH1	Shoot	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	GINSENOSIDE-RH1	Root	--	--		
18	GINSENOSIDES	Plant	--	--		
18	GINSENOSIDES	Leaf	41400	55800		
18	GINSENOSIDES	Root	24400	38800	-0.5241846473045308	
7	GLUCOSE	Root	--	3200	-0.9073364542217909	
4	GLUCURONIC-ACID	Plant	--	--		
8	GLUTAMIC-ACID	Plant	396	4450	-1.3461930909311184	
12	GLYCINE	Plant	23	1540	-0.6509937966580142	
3	GUAJOL	Root Essent. Oil	4649	11276		
6	GUANIDINE	Plant	--	--		
1	GUANINE	Plant	--	--		
7	HISTIDINE	Plant	320	1100	-1.2977122612239684	
1	HYDROXYPROLINE	Plant	--	--		
12	IODINE	Plant	--	--		
6	IRON	Plant	49	407	-0.25900516788108274	
2	ISOBUTYRIC-ACID	Plant	15	15		
3	ISOLEUCINE	Plant	151	370	-1.3559851947971977	
5	ISOVALERIC-ACID	Plant	7	7	-1	
75	KAEMPFEROL	Plant	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	LEUCINE	Plant	420	1530	-1.2675450754216828	
1	LEVULOSE	Plant	--	--		
27	LINOLEIC-ACID	Plant	--	--		
21	LUPEOL	Seed Oil	--	--		
4	LYSINE	Plant	2080	2100	-0.994569738261644	
65	MAGNESIUM	Plant	980	2200	-0.5793608934861032	
15	MALIC-ACID	Plant	--	--		
1	MALONIC-ACID	Plant	--	--		
11	MALTOL	Plant	--	--		
2	MALTOSE	Plant	--	--		
2	MALTOSE	Root	--	3800	-1	
14	MANGANESE	Plant	19	156	0.4231761021050064	
15	METHIONINE	Plant	34	340	-0.8464519406388384	
2	MOLYBDENUM	Plant	10	14	1.719900856164318	
6	MYRISTIC-ACID	Root	--	--		
1	N-BUTYRIC-ACID	Plant	1	1		
39	NIACIN	Plant	47	60	-0.23425190792611786	
11	NICOTINIC-ACID	Plant	14	16	-0.6618011950864978	
2	NONACOSANE	Plant	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
64	OLEANOLIC-ACID	Plant	--	20	-1.1996319701805378	
64	OLEANOLIC-ACID	Root	600	980	1.5393329014356174	
18	OLEIC-ACID	Plant	--	--		
18	OLEIC-ACID	Root	--	--		
1	P-HYDROXYCINNAMIC-ACID	Plant	28	28	1.0000000000000002	
13	PALMITIC-ACID	Plant	--	30	-1.0441687446910903	
13	PALMITIC-ACID	Root	--	--		
13	PALMITIC-ACID	Root Essent. Oil	6543	41917	-1.1452861672753163	
1	PALMITIC-ACID-ETHYL-ESTER	Root Essent. Oil	35913	73504		
3	PANACEN	Plant	--	--		
1	PANAXAN-A	Root	--	--		
1	PANAXAN-B	Root	--	--		
1	PANAXAN-C	Root	--	--		
1	PANAXAN-D	Root	--	--		
1	PANAXAN-E	Root	--	--		
4	PANAXIC-ACID	Plant	--	--		
5	PANAXIN	Plant	--	--		
1	PANAXYDOL	Root	--	950	1	
3	PANAXYNOL	Plant	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PANAXYTRIOL	Root	--	59.1	-0.9999999999999999	
11	PANTOTHENIC-ACID	Plant	7	10	-1.1594401320923207	
24	PECTIN	Plant	--	--		
7	PHENYLALANINE	Plant	--	--		
4	PHOSPHORUS	Plant	2700	5200	0.7743102067399853	
14	POTASSIUM	Plant	6600	33800	0.8370626901796255	
6	PROPIONIC-ACID	Plant	4	4		
2	PROSTISOL	Plant	--	--		
28	PULEGONE	Root Essent. Oil	--	260500		
1	PYRUVIC-ACID	Plant	7000	7000		
1	QUINQUEFOLAN-A	Root	--	--		
1	QUINQUEFOLAN-B	Root	--	--		
1	QUINQUEFOLAN-C	Root	--	--		
1	RAFFINOSE	Plant	--	--		
15	RIBOFLAVIN	Plant	--	1	-0.7255538374993776	
7	SAIKOSAPONIN-A	Plant	--	--		
34	SALICYLIC-ACID	Plant	--	--		
5	SAPONINS	Leaf	--	--		
5	SAPONINS	Root	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	SAPONINS	Flower	--	--		
1	SERINE	Plant	289	1240	-1.3409887493313337	
4	SILICON	Plant	--	--		
1	SODIUM	Plant	500	4800	-0.038367843686175344	
10	SQUALENE	Seed Oil	--	--		
5	STARCH	Plant	80000	320000	0.9009192002645995	
8	STEARIC-ACID	Plant	--	--		
12	STIGMASTEROL	Plant	500	500	1.5758984909207412	
12	STIGMASTEROL	Root	--	--		
7	SUCCINIC-ACID	Plant	40000	40000	1	
14	SUCROSE	Plant	--	420		
14	SUCROSE	Root	39000	158600	0.35021909440780613	
14	SULFUR	Plant	1500	1500	-1.0029568742069708	
5	SUPEROXIDE-DISMUTASE	Root	--	--		
35	TANNIN	Plant	--	--		
6	TARTARIC-ACID	Plant	--	--		
4	THREONINE	Plant	584	1070	-1.2992802612381582	
1	TIGLIC-ACID	Plant	--	--		
2	TRANS-BETA-FARNESENE	Root Essent. Oil	9768	63517	0.4353826614163918	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	TYROSINE	Plant	--	--		
3	VALINE	Plant	82	82	-1.398364895247216	
16	VANADIUM	Plant	0.02	0.02	-0.9999999999999999	
24	VANILLIC-ACID	Plant	33	33	-0.751444222737324	
3	XYLOSE	Root	--	--		
77	ZINC	Plant	10	114	0.6100835562215182	