

## Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Scutellaria baicalensis*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	(+)-5,5'-DIMETHOXYLARICIRESINOL	Root	--	22		
0	(-)-ERODICTYOL	Root	--	7		
0	(2R,3R)-2',3,5,6',7-PENTAHYDROXYFLAVONONE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	1-PHENYL-BUTANE-1,3-DIONE	Root Essent. Oil	--	--		
0	2',3',5,7-TETRAHYDROXYFLAVONE	Root	--	6.4		
0	2',3,5,6',7-PENTAHYDROXY-2(R),3(R)-FLAVANONE	Root	--	420		
0	2',3,5,6',7-PENTAHYDROXYFLAVANONE	Root	--	120		
0	2',3,5,6',7-PENTAHYDROXYFLAVONE	Root	--	10		
0	2',3,5,6',7-PENTAMETHOXYFLAVANONE	Root	--	674		
0	2',5,5',7-TETRAHYDROXY-6',8-DIMETHOXYFLAVONE	Root	17	356		
0	2',5,5',7-TETRAHYDROXYFLAVONE	Root	--	3.5		
0	2',5,5'-TRIHYDROXY-6,7,8-TRIMETHOXYFLAVONE	Root	--	4		
0	2',5,5'-TRIHYDROXY-7,8-DIMETHOXYFLAVONE	Root	--	--		
0	2',5,6',7-TETRAHYDROXY-2(S)-FLAVANONE	Root	--	380		
0	2',5,6',7-TETRAHYDROXYFLAVANONE	Root	--	--		
0	2',5,6',7-TETRAHYDROXYFLAVANONE	Stem	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2',5,6',7-TETRAHYDROXYFLAVONE	Root	--	--		
0	2',5,6'-TETRAHYDROXYFLAVANONE	Root	--	--		
0	2',5,6'-TRIHYDROXY-7,8-DIMETHOXYFLAVONE	Root	--	7		
0	2',5,7-TRIHYDROXY-6',8-DIMETHOXYFLAVONE	Root	--	9		
0	2',5,7-TRIHYDROXY-6',8-TRIMETHOXYFLAVONE	Root	--	7		
0	2',5,7-TRIHYDROXY-6'-METHOXYFLAVONE	Root	--	4		
0	2',5,7-TRIHYDROXY-8-METHOXYFLAVONE	Root	--	6		
0	2',5,7-TRIHYDROXYFLAVONE	Root	--	6		
0	2',5,8-TRIHYDROXY-6,7-DIMETHOXYFLAVONE	Root	--	200		
0	2'-METHYLSKULLCAPFLAVONE	Root	--	--		
0	2(S),2',5,6',7-TETRAHYDROXYFLAVANONE	Root	--	230		
0	2,2',4',6-TETRAHYDROXY-6'-METHOXYCHALCONE	Root	--	5		
1	2,3-DIHYDROBENZOFURAN	Root Essent. Oil	--	--		
0	2-FORMYL-PYRROLE	Root Essent. Oil	--	--		
0	2-HYDROXYACETOPHENONE	Root Essent. Oil	--	--		
0	2-METHYL-BENZYL-ALCOHOL	Root Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-PENTYL-FURAN	Root Essent. Oil	--	--		
0	2-PHENYL-BUTAN-2-ONE	Root Essent. Oil	--	--		
0	2S-2',5,6',7-TETRAHYDROXYFLAVONONE	Root	--	--		Abstract (See species file)
0	3-PHENYL-FURAN	Root Essent. Oil	--	--		
0	3-PHENYL-PROP-2-EN-1-AL	Root Essent. Oil	--	--		
0	4',5,7-TRIHYDROXY-6-METHOXY-FLAVANONE	Root	--	115		
0	4',5,7-TRIHYDROXY-8-METHOXYFLAVONE	Root	20	30		
0	4-ETHENYLGUAIACOL	Root Essent. Oil	--	--		
0	4-METHOXY-ACETOPHENONE	Root Essent. Oil	--	--		
0	4-METHOXY-BENZALDEHYDE	Root Essent. Oil	--	--		
0	4-PHENYL-BUT-CIS-3-EN-2-ONE	Root Essent. Oil	--	--		
0	4-PHENYL-BUT-TRANS-3-EN-2-ONE	Root Essent. Oil	--	--		
0	5,2',5'-TRIHYDROXY-6,7,8-TRIMETHOXYFLAVONE	Root	--	--		Abstract (See species file)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	5,7,2',5'-TETRAHYDROXY-8,6'-DIMETHOXYFLAVONE	Root	--	--		Abstract (See species file)
0	5,7,2'-TRIHYDROXY-8-METHOXYFLAVONE	Root	--	--		Abstract (See species file)
0	5,7,2'-TRIHYDROXYFLAVONE	Root	--	--		Abstract (See species file)
0	5,7-DIHYDROXY-6-METHOXYFLAVONE	Root	--	--		
0	5,8-DIHYDROXY-6,7-DIMETHOXYFLAVONE	Root	--	50		
0	5-HYDROXY-7,8-DIMETHOXYFLAVONE	Root	--	5		
0	5-METHYL-FUR-2-ALDEHYDE	Root Essent. Oil	--	--		
0	7-METHOXY-BAICALEIN	Root	--	--		
16	ACETIC-ACID	Root Essent. Oil	--	--		
6	ACETOPHENONE	Root Essent. Oil	--	--		
0	ACETYL PYRROLE	Root Essent. Oil	--	--		
0	ALPHA-CUBEBENE	Root Essent. Oil	--	--		
101	APIGENIN	Leaf	--	60		
0	APIGENIN-7-O-GLUCURONIDE	Leaf	--	40		
14	ARGININE	Root	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	ARSENIC	Root	0.18	0.18	-0.19984804393860506	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
3	ASPARTIC-ACID	Root	--	--		
50	BAICALEIN	Stem	--	400		
50	BAICALEIN	Root	1000	54000		
0	BAICALEIN-7-O-BETA-D-GLUCOPYRANOSIDE	Root	--	50		
0	BAICALEIN-7-O-BETA-D-GLUCOSIDE	Root	--	--		
0	BAICALEIN-7-O-BETA-O-D-GLUCOPYRANOSIDE	Root	--	--		Abstract (See species file)
0	BAICALEIN-7-O-GLUCOSIDE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	BAICALEIN-GLUCOSIDE	Tissue Culture	--	--		
0	BAICALEIN-GLUCOSIDE	Stem	--	--		
40	BAICALIN	Plant	--	--		
40	BAICALIN	Tissue Culture	--	--		
40	BAICALIN	Stem	5800	43000		
40	BAICALIN	Root	1000	206000		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BAICALIN-7-GLUCURONIDE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
1	BAICALIN-A	Plant	--	--		Cell Mol. Biol. Res. (Vol 39=1993)
0	BAICALIN-GLUCURONIDE	Root	--	--		
0	BAICALIN-METHYL-ESTER	Root	--	27		
0	BAICALINASE	Root	--	--		
20	BENZOIC-ACID	Root Essent. Oil	--	--		
20	BENZOIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	BENZYL-O-BETA-D-APIOFURANOSYL-(1,2)-BETA-D-GLUCOPYRANOSIDE	Root	--	13		
0	BETA-DAMASCONE	Root Essent. Oil	--	--		
5	BETA-ELEMENE	Root Essent. Oil	--	--		
13	BETA-EUDESMOL	Root Essent. Oil	--	--		
47	BETA-SITOSTEROL	Root	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BUTA-1,3-DIENYLBENZENE	Root Essent. Oil	--	--		
10	BUTYLIDENE-PHTHALIDE	Root Essent. Oil	--	--		
28	CALCIUM	Root	4630	10300	0.3172952010599162	
2	CAMPESTEROL	Root	--	--		
0	CARTHAMIDIN	Leaf	--	--		
0	CARTHAMIDIN	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
60	CHRYSIN	Root	3	800		
60	CHRYSIN	Leaf	--	40		
60	CHRYSIN	Stem	--	--		
0	CHRYSIN-6-C-ALPHA-L-ARABINOSIDE-8-C-BETA-D-GLUCOSIDE	Root	--	2000		
0	CHRYSIN-6-C-BETA-D-GLUCOSIDE	Root	--	--		
0	CHRYSIN-6-C-BETA-D-GLUCOSIDE-8-C-ALPHA-L-ARABINOSIDE	Root	--	100		
0	CHRYSIN-7-O-BETA-D-GLUCOSIDE	Root	--	43		
0	CHRYSIN-8-C-BETA-D-GLUCOSIDE	Root	--	46		
5	CNIDILIDE	Root Essent. Oil	--	--		
12	COPPER	Root	13	18	0.6951955719896852	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CYCLOOCTA-1,3,5,7-TETRAENE	Root Essent. Oil	--	--		
1	D-GLUCOSE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	DARENDRSIDE-A	Root	--	16		
0	DARENDRSIDE-B	Root	--	18		
5	DAUCOSTEROL	Root	--	--		
3	DECANOIC-ACID	Root Essent. Oil	--	--		
0	DICHLOROOROXYLIN-A	Tissue Culture	--	--		
0	DIHYDROBAICALIN	Root	--	5		
0	DIHYDROOROXYLIN	Root	--	--		
0	DIHYDROOROXYLIN	Plant	--	--		
0	DIHYDROOROXYLIN-A	Root	--	9		
0	DIHYDROOROXYLIN-A	Plant	--	--		
0	DIHYDROOROXYLIN-A	Stem	--	--		
16	ELEMICIN	Root Essent. Oil	--	--		
76	EUGENOL	Root Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	FERRUGINOL	Root Essent. Oil	--	--		
3	FLUORIDE	Root	--	3.5	-0.7078374445428119	
0	GANHUANGENIN	Root	--	--		
2	GERANYL-ACETONE	Root Essent. Oil	--	--		
8	GLUTAMIC-ACID	Root	--	--		
12	GLYCINE	Root	--	--		
18	GUAIACOL	Root Essent. Oil	--	--		
0	HEDYOTOL-C-4"-O-BETA-D-GLUCOPYRANOSIDE	Root	--	38		
0	HEDYOTOL-D-4"-O-BETA-D-GLUCOPYRANOSIDE	Root	--	32		
0	HEPTANOIC-ACID	Root Essent. Oil	--	--		
0	HEXAHYDROFARNESYL-ACETONE	Root Essent. Oil	--	--		
0	HEXANO-4-LACTONE	Root Essent. Oil	--	--		
0	HUANGQIN	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
15	INDOLE	Root Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	IRON	Root	170	220	-0.12203929793942322	
0	ISOCARTHAMIDIN	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	ISOCARTHAMIDIN	Leaf	--	--		
16	ISOEUGENOL	Root Essent. Oil	--	--		
0	ISOMARTYNOSIDE	Root	--	23		
2	ISOSCUTELLAREIN	Leaf	--	6		
0	ISOSCUTELLAREIN-8-O-GLUCURONIDE	Leaf	--	30		
0	ISOWOGONIN	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	KOGANEBAVIN	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	KOGANEBAVANIN	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
2	LEUCINE	Root	--	--		
0	LEUCOSCEPTOSIDE-A	Root	--	0.013		
7	LIGUSTILIDE	Root Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	LINALOOL	Root Essent. Oil	--	--		
4	LYSINE	Root	--	--		
65	MAGNESIUM	Root	7170	7220	2.478785246403923	
11	MALTOL	Root Essent. Oil	--	--		
14	MANGANESE	Root	18	29	-0.19958637430063508	
23	MELATONIN	Leaf	--	7	-0.7050095792557313	
1	MERCURY	Root	0.08	0.08	-0.22436911587835454	Chen, H.C. and Lin, S.M. 1988. Determination of Mineral Elements in Certain Crude Drugs (Part 1), Kaohsiung J. Med. Sci., 4: 259-272.
15	METHIONINE	Root	--	--		
1	N-BUTYLPHthalide	Root Essent. Oil	--	--		
0	N-DOCOSANE	Root Essent. Oil	--	--		
0	N-DODECANE	Root Essent. Oil	--	--		
0	N-EICOSANE	Root Essent. Oil	--	--		
0	N-HENEICOSANE	Root Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	N-HEPTACOSANE	Root Essent. Oil	--	--		
0	N-HEPTADECANE	Root Essent. Oil	--	--		
2	N-HEXACOSANE	Root Essent. Oil	--	--		
0	N-HEXADECANE	Root Essent. Oil	--	--		
0	N-NONADECANE	Root Essent. Oil	--	--		
0	N-OCTADECANE	Root Essent. Oil	--	--		
0	N-PENTACOSANE	Root Essent. Oil	--	--		
0	N-PENTADECANE	Root Essent. Oil	--	--		
0	N-TETRACOSANE	Root Essent. Oil	--	--		
0	N-TETRADECANE	Root Essent. Oil	--	--		
0	N-TRICOSANE	Root Essent. Oil	--	--		
0	N-TRIDECANE	Root Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	NEOBAICALEIN	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	NEOBAICALEIN	Root	--	--		
0	NEOCNIDILIDE	Root Essent. Oil	--	--		
2	NONANOIC-ACID	Root Essent. Oil	--	--		
0	NORWOGONIN	Root	--	10		
6	O-CRESOL	Root Essent. Oil	--	--		
0	OCHRACIN	Root Essent. Oil	--	--		
5	OCTANOIC-ACID	Root Essent. Oil	--	--		
18	OLEIC-ACID	Root Essent. Oil	--	--		
0	OROXYLIN	Root	--	--		
4	OROXYLIN-A	Stem	--	--		
4	OROXYLIN-A	Plant	--	--		
4	OROXYLIN-A	Root	110	415		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	OROXYLIN-A-7-O-GLUCURONIDE	Root	1000	41000		
0	OROXYLIN-A-7-O-GLUCURONIDE-METHYL-ESTER	Root	--	100		
0	OROXYLIN-A-GLUCURONIDE	Stem	--	--		
0	OROXYLIN-A-GLUCURONIDE	Root	--	--		
8	P-CRESOL	Root Essent. Oil	--	--		
20	PAEONOL	Root Essent. Oil	--	--		
13	PALMITIC-ACID	Root Essent. Oil	--	--		
0	PALMITIC-ACID-METHYL-ESTER	Root Essent. Oil	--	--		
26	PHENOL	Root Essent. Oil	--	--		
2	PHENYL-ACETALDEHYDE	Root Essent. Oil	--	--		
0	PHENYL-ETHYL-ALCOHOL	Root Essent. Oil	--	--		
7	PHENYLALANINE	Root	--	--		
0	PHTHALIC-ACID-DIBUTYL-ESTER	Root Essent. Oil	--	--		
0	PHTHALIC-ACID-DIOCTYL-ESTER	Root Essent. Oil	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	POTASSIUM	Root	6200	9120	-0.4875789454229002	
0	PROLINE	Root	--	--		
0	RIVULARIN	Root	--	50		
1	SALIDROSIDE	Root	--	8		
0	SALVIGENIN	Leaf	--	4		
0	SCUTEBAICALIN	Shoot	--	184		
7	SCUTELLAREIN	Root	--	--		
7	SCUTELLAREIN	Leaf	--	30		
0	SCUTELLARIN	Plant	--	--		
0	SCUTELLARIN	Root	--	--		
0	SENKYUNOLIDE	Root Essent. Oil	--	--		
1	SERINE	Root	--	--		
0	SKULLCAPFLAVONE-I	Root	--	--		
4	SKULLCAPFLAVONE-II	Root	3.3	863		
4	SKULLCAPFLAVONE-II	Stem	--	--		
1	SODIUM	Root	740	991	-0.05134802217103382	
8	STEARIC-ACID	Root Essent. Oil	--	--		
12	STIGMASTEROL	Root	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	SUCROSE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	SYRINGARESINOL-O-BETA-D-GLUCOSIDE	Root	--	52		
23	TERPINEN-4-OL	Root Essent. Oil	--	--		
0	TETRADECANOIC-ACID	Root Essent. Oil	--	--		
4	THREONINE	Root	--	--		
0	TRANS-CARYOPHYLLENE	Root Essent. Oil	--	--		
28	VANILLIN	Root Essent. Oil	--	--		
20	VERBASCOSIDE	Root	--	74		
0	VISCIDULIN-III	Root	--	37		
0	VISCIDULIN-III-2'-O-BETA-D-GLUCOPYRANOSIDE	Root	--	100		
16	WOGONIN	Root	34.7	7300		
16	WOGONIN	Leaf	--	40		
16	WOGONIN	Stem	--	2100		
16	WOGONIN	Plant	--	--		
0	WOGONIN-5-BETA-D-GLUCOSIDE	Root	--	--		
0	WOGONIN-7-O-BETA-D-GLUCURONIDE	Root	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	WOGONIN-7-O-BETA-D-GLUCURONIDE-METHYL-ESTER	Root	--	--		
0	WOGONIN-7-O-D-GLUCURONIDE	Root	--	--		
0	WOGONIN-7-O-GLUCURONIC-ACID	Tissue Culture	--	--		
1	WOGONIN-7-O-GLUCURONIDE	Stem	--	33200		
1	WOGONIN-7-O-GLUCURONIDE	Root	119	54000		
1	WOGONIN-7-O-GLUCURONIDE-METHYL-ESTER	Root	--	30		
0	WOGONIN-GLUCURONIDE	Root	--	--		
0	WOGONOSIDE	Root	--	39700		
77	ZINC	Root	17	18	-0.27058763773169275	