

List of All Chemicals

P Glycyrrhiza uralensis (Fabaceae)

Common name(s)

Gan-Cao; Chinese Licorice; Kan-Tsao

How used

GRAS

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Part All ▾	Low PPM	High PPM	StdDev	*Reference
1-METHOXY-FICIFOLINOL	Root	--	3.4		*
18-ALPHA-GLYCYRRHETINIC-ACID	Root	--	--		*
18-ALPHA-GLYCYRRHIZIN	Root	--	200.0		*
18-ALPHA-HYDROXY-GLYCYRRHETATE	Rhizome	--	--		*
18-BETA-GLYCYRRHETINIC-ACID	Root	--	--		*
2',4',5-TRIHYDROXY-7-METHOXY-8-ALPHA-ALPHA-DIMETHYL-ALLYL-3-ARYLCOUMARIN	Root	--	--		*
2',4',7-TRIHYDROXY-3'-GAMMA-GAMMA-DIMETHYL-ALLYL-3-ARYLCOUMARIN	Root	--	--		*
2,3-DIHYDRO-ISOLIQUIRITIGENIN	Root	--	--		*
2-METHYL-7-HYDROXYISOFLAVONE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
22-BETA-ACETYL-GLABRIC-ACID	Root	--	--		*
24-HYDROXYGLABROLIDE	Root	--	--		*
24-HYDROXYGLYCYRRHETIC-ACID-METHYL-ESTER	Root	--	--		*
28-HYDROXYGLYCYRRHETIC-ACID	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
3-ACETYL-GLYCYRRHETIC-ACID	Root	--	--		*
3-BETA-24-DIHYDROXY-OLEAN-11,13(18)-DIEN-30-OIC-ACID-METHYL-ESTER	Root	--	--		*
3-BETA-FORMYLGLABROLIDE	Root	--	--		*
3-O-METHYLGLYCYROL	Root	--	--		*
3-OXO-GLYCYRRHETIC-ACID	Root	--	--		*
4',7-DIHYDROXYFLAVONE	Root	--	240.0		*
4'-O-(BETA-D-APIO-D-FURANOSYL-(1,2)-BETA-D-GLUCOPYRANOSYL)-LIQUIRITIGENIN	Root	--	120000.0		*
5-O-METHYLGLYCYROL	Root	--	--		*
6''-O-ACETYL-LIQUIRITIN	Root	--	--		*
8-C-PRENYL-ERIODICTYOL	Root	--	13.0		*
APIGENIN-6,8-DI-C-GLUCOSIDE	Root	--	--		*
APIOGLYCYRRHIZIN	Root	--	100.0	-1.0	*
Activities (1)					
Sweetener 180 x sucrose					
APIOISOLIQUIRITIN	Root	--	--		*

APIOLIQUIRITIN	Root	--	--		*
ARABOGLYCYRRHIZIN	Root	--	600.0	1.0	*
Activities (1)					
Sweetener 93 x sucrose					
ARSENIC	Root	--	0.3	-0.19	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.
Activities (2)					
Anorexic	Forest H. Nielsen, USDA, Grand Forks, various publications.				
Pesticide					
ASPARANIC-ACID	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
ASTRAGALIN	Leaf	--	16.0	-1.0	*
Activities (7)					
ACE-Inhibitor ID50=180 ug/ml rat (24 hr.)					
Aldose-Reductase-Inhibitor IC30=1 uM					
Aldose-Reductase-Inhibitor IC62=10 uM	Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.				
Antileukemic					
Expectorant					
Hypotensive	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.				
Immunostimulant					
BETA-SITOSTEROL	Root	--	--		*

Activities (47)

Androgenic	
Angiogenic	
Anorexic	Martindale's 28th
Antiadenomic	Merck 11th Edition
Antiandrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antibacterial	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155.
Anticancer (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Anticancer (Cervix)	
Anticancer (Lung)	
Antiedemic IC54=320 mg/kg orl	
Antiestrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Antifertility	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antigonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antihyperlipoproteinaemic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antiinflammatory	
Antileukemic	
Antilymphomic	
Antimutagenic 250 ug/ml	
Antiphidic 2.3 mg mus	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC44=10 uM	
Antiprogestational	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antiprostaglandin 30 mg/day/12 wks	
Antiprostataadenomic	Merck 11th Edition
Antiprostatic 10-20 mg 3 x/day/orl man	
Antipyretic	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs.</i> Chapman & Hall, New York. 941 pp.
Antitumor (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Antitumor (Cervix)	
Antitumor (Lung)	
Antiviral	Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in <i>Artemisia annua</i> . <i>Plant Science</i> , 75: 161-165, 1991.
Apoptotic	
Artemicide LC50=110 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, c., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of <i>Melodorum fruticosum</i> . <i>Phytochemistry</i> . 29(5): 1667-1670. 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155.
Caspase-8-Inducer	
Estrogenic	
Febrifuge	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs.</i> Chapman & Hall, New York. 941 pp.
Gonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Hepatoprotective	
Hypocholesterolemic 2-6 g/man/day/orl	Martindale's 30th
Hypocholesterolemic 9-3,330 mg/man/day/orl	Martindale's 28th
Hypoglycemic	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Hypolipidemic 2-6 g/day	
Pesticide	
Spermicide	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Ulcerogenic 500 mg/kg ipr rat	

BETULINIC-ACID

Root

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Activities (22)

Anthelmintic	
AntiHIV EC50=2.0 ug/ml	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.
AntiHIV IC50=6.5 ug/ml	
AntiHIV 14.8 uM	
Antibacterial	
Anticancer	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticarcinomic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiedemic	
Antiinflammatory	Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antileukemic	
Antimalarial IC50=19-26 ug/ml	
Antimelanomic	New York Times, 3/28/95.
Antinociceptive	
Antiplasmodial IC50=19-26 ug/ml	
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 14.8 uM	
Apoptotic	
Cytotoxic 50-100 ppm	Biosyn. Prod. Cancer Chemotherapy (Petit et al)
Cytotoxic 16.4 uM	
Phospholipase-A2-Inhibitor	
Prostaglandin-Synthesis-Inhibitor 200 ug/ml	Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphonidia zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.
Prostaglandin-Synthesis-Inhibitor IC50=101 uM	Huang, C., Tunon, H., Bohlin, L. 1995. Anti-Inflammatory Compounds Isolated from Menyanthes trifoliata L. Yao Hsueh Hsueh Pao, 30(8): 621-626.

CALCIUM

Root 6850.0 23500.0 1.76 *

Activities (28)

AntiPMS 1 g/day	
Antiallergic 500 mg/day	
Antianxiety	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiarrhythmic 500-1,500 mg	
Antiartritic 1,000 mg/day	
Antiatherosclerotic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticlimacteric 1,000-1,500 mg/day	
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Aluminum)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidote (Lead)	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihyperkinetic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antiinsomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antimenopausal 1,000-1,500 mg/day	
Antiobesity	
Antiosteoporotic 500-2,000 mg/day	
Antiperiodontitic 750 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antirheumatic 1,000 mg/day	
Antistress 500-1,500 mg/day	
Antitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anxiolytic 500-1,500 mg/day	
Calcium-Channel-Blocker	
Diuretic	
Hypocholesterolemic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 1 g/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Laxative 1,000-1,200 mg	
Tranquilizer 500-1,500 mg/day	
Vasodilator	

CLYCOSIN Sprout -- 0.5 *

Seedling

COPPER Root 13.0 14.0 0.25 *

Activities (12)					
Antianemic					
Antiarthritic					
Antidiabetic 2-4 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antifatigue					
Antiinflammatory	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antinociceptive	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.				
Antiosteoporotic					
Cardioprotective					
Contraceptive	Martindale's 28th				
Hypocholesterolemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				
Immunomodulator					
Schizophrenigenic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.				

ECHINATIN	Sprout	--	--		*
	Seedling				

Activities (1)					
Aldose-Reductase-Inhibitor 1 ug/mL	Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. Planta Medica 56(3): 254-258.				

ECHINATIN	Tissue	--	--		*
	Culture				

Activities (1)					
Aldose-Reductase-Inhibitor 1 ug/mL	Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. Planta Medica 56(3): 254-258.				

ECHINATIN	Root	--	--		*
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Activities (1)					
Aldose-Reductase-Inhibitor 1 ug/mL	Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. Planta Medica 56(3): 254-258.				

EO	Root	--	50.0	-0.65	Isaev, V. 1932. Essential Oils of the Flora of Tadshikistan. Acta Hortii Bot Tadshikistan 1932: 17-.
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FORMONONETIN	Shoot	--	3.0		*
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Activities (16)					
Abortifacient	Cooper-Driver, G. A., Chemical substances in plants toxic to animals, pp. 213-47 in Rechcigl, M., Jr., ed. CRC Handbook of Naturally Occurring Food Toxicants, CRC Press, Boca Raton, 1983, 339 pp.				
Anticephalagic					
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.				
Antiulcer?					
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
Estrogenic	Merck 11th Edition				
Fungicide ED50=250-350 ug/ml	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.				
Fungicide ED50=>100					
Fungicide IC16-18=100 uM					
Herbicide-Safener	Chau (1985) in Purseglove et al. Acta Botanica Sinica, 2.				
Hypocholesterolemic					
Hypolipidemic					
Myorelaxant	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.				
Pesticide					
Topoisomerase-I-Inhibitor	Sannti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. Toxicol Ind Health, 14: 223-237.				
VAM-Stimulant	Chau (1985) in Purseglove et al. Acta Botanica Sinica, 2.				

FORMONONETIN	Root	--	--		*
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Activities (16)

Abortifacient	Cooper-Driver, G. A., Chemical substances in plants toxic to animals, pp. 213-47 in Rechcigl, M., Jr., ed. CRC Handbook of Naturally Occurring Food Toxicants, CRC Press, Boca Raton, 1983, 339 pp.
Anticephalagic	
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Antiulcer?	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Estrogenic	Merck 11th Edition
Fungicide ED50=250-350 ug/ml	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Fungicide ED50=>100	
Fungicide IC16- 18=100 uM	
Herbicide-Safener	Chau (1985) in Purseglove et al. Acta Botanica Sinica, 2.
Hypocholesterolemic	
Hypolipidemic	
Myorelaxant	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Pesticide	
Topoisomerase-I- Inhibitor	Sanitti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. Toxicol Ind Health, 14: 223-237.
VAM-Stimulant	Chau (1985) in Purseglove et al. Acta Botanica Sinica, 2.

FORMONONETIN	Sprout	--	25.0	*
	Seedling			

Activities (16)

Abortifacient	Cooper-Driver, G. A., Chemical substances in plants toxic to animals, pp. 213-47 in Rechcigl, M., Jr., ed. CRC Handbook of Naturally Occurring Food Toxicants, CRC Press, Boca Raton, 1983, 339 pp.
Anticephalagic	
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Antiulcer?	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Estrogenic	Merck 11th Edition
Fungicide ED50=250-350 ug/ml	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Fungicide ED50=>100	
Fungicide IC16- 18=100 uM	
Herbicide-Safener	Chau (1985) in Purseglove et al. Acta Botanica Sinica, 2.
Hypocholesterolemic	
Hypolipidemic	
Myorelaxant	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
Pesticide	
Topoisomerase-I- Inhibitor	Sanitti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. Toxicol Ind Health, 14: 223-237.
VAM-Stimulant	Chau (1985) in Purseglove et al. Acta Botanica Sinica, 2.

GANCAONIN-A	Shoot	--	37.0	*
GANCAONIN-B	Shoot	--	20.0	*
GANCAONIN-C	Shoot	--	3.0	*
GANCAONIN-D	Shoot	--	0.3	*
GANCAONIN-E	Shoot	--	8.0	*
GANCAONIN-L	Shoot	--	7.0	*
GANCAONIN-M	Shoot	--	6.0	*
GANCAONIN-N	Shoot	--	1.0	*
GANCAONIN-O	Shoot	--	5.0	*
GANCAONIN-P	Shoot	--	6.0	*
GANCAONIN-P3'-METHYL-ETHER	Root	--	1.0	*
GANCAONIN-Q	Shoot	--	1.5	*
GANCAONIN-R	Shoot	--	14.0	*

GANCAONIN-S	Shoot	--	3.0		*
GANCAONIN-T	Shoot	--	1.0		*
GANCAONIN-U	Shoot	--	12.0		*
GANCAONIN-V	Shoot	--	--		*
GLABRIC-ACID	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
GLABROLIDE	Root	--	--		*
GLUCOSE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)

Activities (7)

Acetylcholinergic

Antiedemic Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Antihepatotoxic Merck 11th Edition

Antiketotic Merck 11th Edition

Antivarcicose Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Hyperglycemic Merck 11th Edition

Memory-Enhancer Science News, 138: 189, 1990.

GLUCURONIC-ACID	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
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Activities (4)

Antidote (Camphor)

Antidote (Morphine)

Antihepatotoxic

Detoxicant Merck 11th Edition

GLYASPERIN-D	Root	--	0.4		*
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GLYCYCOUMARIN	Rhizome	10.0	1380.0		*
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Activities (5)

AntiHIV 20 ug/ml

Antiviral 20 ug/ml

MAO-Inhibitor IC50=>200

Pesticide

Xanthine-Oxidase-Inhibitor IC50=>100 uM

GLYCYCOUMARIN	Root	1600.0	1750.0	1.0	*
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Activities (5)

AntiHIV 20 ug/ml

Antiviral 20 ug/ml

MAO-Inhibitor IC50=>200

Pesticide

Xanthine-Oxidase-Inhibitor IC50=>100 uM

GLYCYRIN	Root	--	400.0		*
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GLYCYROL	Root Bark	--	--		*
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GLYCYROL	Rhizome	--	440.0		*
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GLYCYROL	Root	--	800.0	1.0	*
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GLYCYRRHETIC-ACID	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
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Activities (29)

AntiAddisonian

Antiallergic 600 mg/kg
iprAntianaphylactic 600
mg/kg ipr

Antiasthmatic

Williamson, E. M. and Evans, F. J., *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antibacterial

Anticirrhotic

Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antidiuretic

Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

Antiedemic

Iwu, M.M. 1993. *Handbook of African Medicinal Plants*. CRC Press, Boca Raton, FL 435 pp.

Antiestrogenic

Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).Antihepatotoxic 50-
500 ug/ml

Antiherpetic

Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antiinflammatory

Antimelanomic

Antimutagenic

Economic & Medicinal Plant Research, 6: 235.

Antioxidant

Williamson, E. M. and Evans, F. J., *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antirheumatic

Antistomatitic

Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antitumor-Promoter

Antitussive

Antiulcer

Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antivaccinia

Antiviral

Cancer-Preventive

Stitt, P. A. *Why George Should Eat Broccoli*. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Hepatoprotective

Williamson, E. M. and Evans, F. J., *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Hypertensive

Immunostimulant

Economic & Medicinal Plant Research, 6: 189.

Interferonogenic

Williamson, E. M. and Evans, F. J., *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Mineral-Corticoid

Williamson, E. M. and Evans, F. J., *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Pesticide

GLYCYRRHETIC-ACID-METHYL-ESTER

Root

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GLYCYRRHETINIC-ACID

Root

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Activities (32)

AntiAddisonian	
AntiEBV	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Antiallergic 600 mg/kg ipr	
Antianaphylactic 600 mg/kg ipr	
Antiasthmatic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antibacterial	
Anticirrhotic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticomplement 0.1 uM	
Antidiuretic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiedemic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antierhythmic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Antiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antihepatotoxic 50-500 ug/ml	
Antihyperptic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiinflammatory	
Antimelanomic	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antirheumatic	
Antistomatitic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antitumor-Promoter	
Antitussive	
Antiulcer	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antivaccinia	
Antiviral	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Hepatoprotective	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Hypertensive	
Immunostimulant	Economic & Medicinal Plant Research, 6: 189.
Interferonogenic	
Mineral-Corticoid	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Pesticide	

GLYCYRRHIZA-PECTIC-POLYSACCHARIDE	Root	--	--	*
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GLYCYRRHIZA-PECTIN	Root	--	--	*
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GLYCYRRHIZA-URALENSIS-GLUCAN-6	Root	--	--	*
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GLYCYRRHIZIN	Leaf	--	--	*
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Activities (57)

Adrenocorticotropic	
Amphiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Analgesic	
AntiAddisonian	
AntiHIV 0.6 mM	
Antiallergic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antianaphylactic	Economic & Medicinal Plant Research, 6: 189.
Antiarthritic	
Antiasthmatic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antibacterial	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticariogenic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticataract	
Anticirrhotic	
Antidiphtheric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antidote	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiedemic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antigingivitic	
Antihepatotic	
Antihepatotoxic 1,000 ug/ml	
Antiherpetic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiinflammatory	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiplateau	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostaglandin	
Antiradicular	
Antirheumatic	
Antiseborrheic	
Antiseptic	
Antistomatitic	
Antitetanic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antitussive	
Antiulcer	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Antivaccinic	
Antiviral 8 mM	Economic & Medicinal Plant Research, 6: 189.
Cancer-Preventive	
Capillarioprotective	Economic & Medicinal Plant Research, 6: 189.
Detoxicant	
Ergogenic 40-80 mg/man/day/shortterm	
Estrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Expectorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
FLavor FEMA 5-60	Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 207.
Hypertensive	
Immunostimulant	
Interferonogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
MAO-Inhibitor IC50=160	
MAO-Inhibitor IC50=160 uM	
Mineral-Corticoid	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Mitogenic	
Pancreaprotective	
Pesticide	
Prostaglandin-Synthesis-Inhibitor 100 mg/kg igs mus	Ren, J., Cheng, J. X., Wang, Z. G. 1988. Effects of Ammonium Glycyrrhizinate on the Synthesis of Prostaglandins E2 and F2-alpha. K'o Hsueh T'ung Pao, (3): 227-229.
Pseudoaldosteronistic	
Reverse-Transcriptase-Inhibitor	
Sweetener 50 X sucrose	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

GLYCYRRHIZIN

Stem -- -- *

Activities (57)

Adrenocorticotropic	
Amphiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Analgesic	
AntiAddisonian	
AntiHIV 0.6 mM	
Antiallergic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antianaphylactic	Economic & Medicinal Plant Research, 6: 189.
Antiarthritic	
Antiasthmatic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antibacterial	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Anticariogenic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticataract	
Anticirrhotic	
Antidiphtheric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidote	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiedemic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antigingivitic	
Antihepatotic	
Antihepatotoxic 1,000 ug/ml	
Antiherpetic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiinflammatory	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiplateau	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostaglandin	
Antiradicular	
Antirheumatic	
Antiseborrheic	
Antiseptic	
Antistomatitic	
Antitetanic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antitussive	
Antiulcer	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Antivaccinic	
Antiviral 8 mM	Economic & Medicinal Plant Research, 6: 189.
Cancer-Preventive	
Capillarioprotective	Economic & Medicinal Plant Research, 6: 189.
Detoxicant	
Ergogenic 40-80 mg/man/day/shortterm	
Estrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Expectorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
FLavor FEMA 5-60	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
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Hypertensive	
Immunostimulant	
Interferonogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
MAO-Inhibitor IC50=160	
MAO-Inhibitor IC50=160 uM	
Mineral-Corticoid	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Mitogenic	
Pancreaprotective	
Pesticide	
Prostaglandin-Synthesis-Inhibitor 100 mg/kg igs mus	Ren, J., Cheng, J. X., Wang, Z. G. 1988. Effects of Ammonium Glycyrrhizinate on the Synthesis of Prostaglandins E2 and F2-alpha. K'o Hsueh T'ung Pao, (3): 227-229.
Pseudoaldosteronistic	
Reverse-Transcriptase-Inhibitor	
Sweetener 50 X sucrose	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

GLYCYRRHIZIN

Plant -- -- *

Activities (57)

Adrenocorticotropic	
Amphiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Analgesic	
AntiAddisonian	
AntiHIV 0.6 mM	
Antiallergic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antianaphylactic	Economic & Medicinal Plant Research, 6: 189.
Antiarthritic	
Antiasthmatic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antibacterial	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticariogenic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticataract	
Anticirrhotic	
Antidiphtheric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidote	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiedemic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antigingivitic	
Antihepatotic	
Antihepatotoxic 1,000 ug/ml	
Antihyperpic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiinflammatory	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
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Antiplaque	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostaglandin	
Antiradicular	
Antirheumatic	
Antiseborrheic	
Antiseptic	
Antistomatitic	
Antitetanic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antitussive	
Antiulcer	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Antivaccinic	
Antiviral 8 mM	Economic & Medicinal Plant Research, 6: 189.
Cancer-Preventive	
Capillariprotective	Economic & Medicinal Plant Research, 6: 189.
Detoxicant	
Ergogenic 40-80 mg/man/day/shortterm	
Estrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Expectorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
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Hypertensive	
Immunostimulant	
Interferonogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
MAO-Inhibitor IC50=160	
MAO-Inhibitor IC50=160 uM	
Mineral-Corticoid	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Mitogenic	
Pancreaprotective	
Pesticide	
Prostaglandin-Synthesis-Inhibitor 100 mg/kg igs mus	Ren, J., Cheng, J. X., Wang, Z. G. 1988. Effects of Ammonium Glycyrrhizinate on the Synthesis of Prostaglandins E2 and F2-alpha. K'o Hsueh T'ung Pao, (3): 227-229.
Pseudoaldosteronistic	
Reverse-Transcriptase-Inhibitor	
Sweetener 50 X sucrose	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

GLYCYRRHIZIN Rhizome 2000.0 81670.0 1.36 *

Activities (57)

Adrenocorticotropic

Amphiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Analgesic	
AntiAddisonian	
AntiHIV 0.6 mM	
Antiallergic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antianaphylactic	Economic & Medicinal Plant Research, 6: 189.
Antiarthritic	
Antiasthmatic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antibacterial	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticariogenic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticataract	
Anticirrhotic	
Antidiphtheric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidote	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiedemic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antigingivitic	
Antihepatotic	
Antihepatotoxic 1,000 ug/ml	
Antihyperptic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiinflammatory	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
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Antiradicular	
Antirheumatic	
Antiseborrheic	
Antiseptic	
Antistomatitic	
Antitetanic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antitussive	
Antiulcer	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Antivaccinic	
Antiviral 8 mM	Economic & Medicinal Plant Research, 6: 189.
Cancer-Preventive	
Capillariprotective	Economic & Medicinal Plant Research, 6: 189.
Detoxicant	
Ergogenic 40-80 mg/man/day/shortterm	
Estrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Expectorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
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Immunostimulant	
Interferonogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
MAO-Inhibitor IC50=160	
MAO-Inhibitor IC50=160 uM	
Mineral-Corticoid	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Mitogenic	
Pancreaprotective	
Pesticide	
Prostaglandin-Synthesis-Inhibitor 100 mg/kg igs mus	Ren, J., Cheng, J. X., Wang, Z. G. 1988. Effects of Ammonium Glycyrrhizinate on the Synthesis of Prostaglandins E2 and F2-alpha. K'o Hsueh T'ung Pao, (3): 227-229.
Pseudoaldosteronistic	
Reverse-Transcriptase-Inhibitor	
Sweetener 50 X sucrose	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Activities (57)

Adrenocorticotropic	
Amphiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Analgesic	
AntiAddisonian	
AntiHIV 0.6 mM	
Antiallergic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antianaphylactic	Economic & Medicinal Plant Research, 6: 189.
Antiarthritic	
Antiasthmatic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antibacterial	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticariogenic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Anticataract	
Anticirrhotic	
Antidiphtheric	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidote	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiedemic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
Antiestrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antigingivitic	
Antihepatotic	
Antihepatotoxic 1,000 ug/ml	
Antiherpetic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiinflammatory	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antioxidant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiplateau	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostaglandin	
Antiradicular	
Antirheumatic	
Antiseborrheic	
Antiseptic	
Antistomatitic	
Antitetanic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antitussive	
Antiulcer	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Antivaccinic	
Antiviral 8 mM	Economic & Medicinal Plant Research, 6: 189.
Cancer-Preventive	
Capillariprotective	Economic & Medicinal Plant Research, 6: 189.
Detoxicant	
Ergogenic 40-80 mg/man/day/shortterm	
Estrogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Expectorant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
FLavor FEMA 5-60	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Hepatoprotective	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 207.
Hypertensive	
Immunostimulant	
Interferonogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
MAO-Inhibitor IC50=160	
MAO-Inhibitor IC50=160 uM	
Mineral-Corticoid	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Mitogenic	
Pancreaprotective	
Pesticide	

Prostaglandin-Synthesis-Inhibitor 100 mg/kg igs mus
 Pseudoaldosteronistic
 Reverse-Transcriptase-Inhibitor
 Sweetener 50 X sucrose

Ren, J., Cheng, J. X., Wang, Z. G. 1988. Effects of Ammonium Glycyrrhizinate on the Synthesis of Prostaglandins E2 and F2-alpha. K'o Hsueh T'ung Pao, (3): 227-229.

Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

GLYURANOLIDE Rhizome -- -- *

IRON Root 180.0 280.0 -0.03 *

Activities (6)

Antiakathisic Martindale's 29th
 Antianemic Martindale's 29th
 Anticanker
 Anticheilitic Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
 Antimenorrhagic 100 mg/day/wmn/orl Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
 Prooxidant

ISOBAVACHALCONE Sprout -- 0.8 *
 Seedling

Activities (2)

Antiaggregant IC50=0.5-65 uM
 Antimutagenic Economic & Medicinal Plant Research, 6: 235.

ISOGLYCYCOUMARIN Rhizome -- 180.0 *

ISOGLYCYROL Root -- 200.0 *

ISOGLYCYROL Root -- -- *
 Bark

ISOGLYCYROL Rhizome -- 270.0 1.0 *

ISOLICOFLAVONOL Rhizome -- 10.0 *

Activities (2)

AntiHIV 20 ug/ml
 Antiviral 20 ug/ml

ISOLIQUIRITIGENIN Root 100.0 1050.0 -1.0 *

Activities (28)

- Aldose-Reductase-Inhibitor
IC50=0.32 uM
- Aldose-Reductase-Inhibitor 0.1
ug/ml
- AntiPAF
- AntiPAF
- Antiaggregant
- Antiallergic
- Antidepressant
Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
- Antidiabetic
- Antiischemic
- Antioxidant
- Antispasmodic
- Antitumor
- Antiulcer
- Antiviral
- Apoptotic
- Cancer-Preventive
- Cyclooxygenase-Inhibitor
- Estrogenic
- Lipoxygenase-Inhibitor
- MAO-Inhibitor EC50=17 uM
Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
- MAO-Inhibitor IC50=>200
- Myorelaxant
- Peroxidase-Inhibitor
- Pigment
Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
- Quinone-Reductase-Inhibitor
IC50=27.3 uM
- Quinone-Reductase-Inhibitor
IC76=10 ug/ml
- Tyrosine-Kinase-Inhibitor
IC50=8.1 uM
- Vasorelaxant

ISOLIQUIRITIGENIN

Sprout	--	--	*
Seedling			

Activities (28)

Aldose-Reductase-Inhibitor
IC50=0.32 uM

Aldose-Reductase-Inhibitor 0.1
ug/ml

AntiPAF

AntiPAF

Antiaggregant

Antiallergic

Antidepressant

Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antidiabetic

Antiischemic

Antioxidant

Antispasmodic

Antitumor

Antiulcer

Antiviral

Apoptotic

Cancer-Preventive

Cyclooxygenase-Inhibitor

Estrogenic

Lipoxygenase-Inhibitor

MAO-Inhibitor EC50=17 uM

Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.

MAO-Inhibitor IC50=>200

Myorelaxant

Peroxidase-Inhibitor

Pigment

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Quinone-Reductase-Inhibitor
IC50=27.3 uM

Quinone-Reductase-Inhibitor
IC76=10 ug/ml

Tyrosine-Kinase-Inhibitor
IC50=8.1 uM

Vasorelaxant

ISOLIQURITIGENIN

Rhizome

60.0

20000.0

1.0

*

Activities (28)

- Aldose-Reductase-Inhibitor
IC50=0.32 uM
- Aldose-Reductase-Inhibitor 0.1
ug/ml
- AntiPAF
- AntiPAF
- Antiaggregant
- Antiallergic
- Antidepressant Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
- Antidiabetic
- Antiischemic
- Antioxidant
- Antispasmodic
- Antitumor
- Antiulcer
- Antiviral
- Apoptotic
- Cancer-Preventive
- Cyclooxygenase-Inhibitor
- Estrogenic
- Lipoxygenase-Inhibitor
- MAO-Inhibitor EC50=17 uM Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
- MAO-Inhibitor IC50=>200
- Myorelaxant
- Peroxidase-Inhibitor
- Pigment Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
- Quinone-Reductase-Inhibitor
IC50=27.3 uM
- Quinone-Reductase-Inhibitor
IC76=10 ug/ml
- Tyrosine-Kinase-Inhibitor
IC50=8.1 uM
- Vasorelaxant

ISOLIQUIRITIN Root 120.0 4000.0 1.0 *

Activities (6)

- Aldose-Reductase-Inhibitor IC50=0.72 uM Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. Planta Medica 56(3): 254-258.
- Antiinflammatory
- Fungicide
- MAO-Inhibitor
- Pesticide
- Phytoalexin

ISOLIQUIRITIN Rhizome 800.0 23280.0 1.0 *

Activities (6)

- Aldose-Reductase-Inhibitor IC50=0.72 uM Aida, K., Tawata, M., Shindo, H., Onaya, T., Sasaki, H., Yamaguchi, T., Chin, M.(Chen, Z.), and Mitsuhashi, H. 1989. Isoliquiritigenin: A New Aldose Reductase Inhibitor from Glycyrrhizae Radix. Planta Medica 56(3): 254-258.
- Antiinflammatory
- Fungicide
- MAO-Inhibitor
- Pesticide
- Phytoalexin

ISOLIQUIRITIN-APIOSIDE Root 20.0 1650.0 *

ISOQUERCITRIN Leaf -- 21.0 -0.45 *

Activities (22)

ACE-Inhibitor ID50=300 ug/ml rat (24 hr.)

Aldose-Reductase-Inhibitor Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Antibacterial Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Anticancer

Antielastase IC50=0.7 ug/ml

Antifeedant Russell, G. B., Phytochemical resources for crop protection, N. Z. J. Technol., 2, 1986, 127-134.

Antiinflammatory

Antinociceptive

Antioxidant 1/4 quercetin

Antioxidant IC50=9.0 uM

Antiradicular 1/4 quercetin

Antitumor

Antitumor-Promoter

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Capillarigenic

Diaphoretic

Diuretic 10 ppm List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Hypotensive Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. Chem. Pharm. Bull. 38(4): 1049-1052, 1990.

Insectiphile Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Pesticide

TNF-alpha-Inhibitor

Topoisomerase-II-Inhibitor 550 ug/ml Bernard, F. X., Sable, S., Cameron, B., Provost, J., Desnottes, J. F., Crouzet, J., Blanche, F. 1997. Glycosylated Flavones as Selective Inhibitors of Topoisomerase IV. Antimicrobial Agents & Chemotherapy, 41: 992-998.

KANZONOL-F	Root	--	2.0	*
KANZONOL-G	Root	--	4.0	*
KANZONOL-H	Root	--	1.0	*
KANZONOL-I	Root	--	4.0	*
KANZONOL-J	Root	--	2.0	*
KANZONOL-K	Rhizome	--	0.04	*
KANZONOL-L	Rhizome	--	0.1	*
KANZONOL-M	Root	--	0.6	*
KANZONOL-N	Root	--	0.4	*
KANZONOL-O	Root	--	0.4	*
KANZONOL-P	Root	--	0.8	*
KUMATAKENIN	Root	--	--	*
LICOBENZOFURAN	Root	--	--	*

Activities (2)

Antiseptic Wichtl, M. 1984. Teedrogen. Ein Handbuch für Apotheker und Ärzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.

Pesticide

LICOCHALCONE-A	Root	--	--	*
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Activities (28)

AntiHIV 20 ug/ml
 AntiLegionella 1-1,000 ug/ml
 AntiMRSA MIC=16 ug/ml
 AntiPGE2 IC50=15 nM
 Antiedemic
 Antihelicobacter
 Antiinflammatory
 Antileishmanic
 Antileukotriene IC50=0.46 uM Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
 Antimalarial
 Antimitochondrial
 Antiparasitic
 Antiplasmodial
 Antiproliferant 5 uM
 Antiseptic 5 uM
 Antitumor 5 uM
 Antiulcer Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
 Antiviral 20 ug/ml
 Apoptotic
 Bactericide
 Cyclin-Inhibitor 5 uM
 Cytotoxic
 Estrogenic
 MAO-Inhibitor IC50=>200
 Mycobactericide ~20 ug/ml
 PDGF-Inhibitor 5 uM
 Pesticide
 Xanthine-Oxidase-Inhibitor IC50=56 uM

LICOCHALCONE-A

Rhizome -- -- *

Activities (28)

AntiHIV 20 ug/ml
 AntiLegionella 1-1,000 ug/ml
 AntiMRSA MIC=16 ug/ml
 AntiPGE2 IC50=15 nM
 Antiedemic
 Antihelicobacter
 Antiinflammatory
 Antileishmanic
 Antileukotriene IC50=0.46 uM Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
 Antimalarial
 Antimitochondrial
 Antiparasitic
 Antiplasmodial
 Antiproliferant 5 uM
 Antiseptic 5 uM
 Antitumor 5 uM
 Antiulcer Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.
 Antiviral 20 ug/ml
 Apoptotic
 Bactericide
 Cyclin-Inhibitor 5 uM
 Cytotoxic
 Estrogenic
 MAO-Inhibitor IC50=>200
 Mycobactericide ~20 ug/ml
 PDGF-Inhibitor 5 uM
 Pesticide
 Xanthine-Oxidase-Inhibitor IC50=56 uM

LICOCHALCONE-B

Root -- -- *

Activities (2)				
MAO-Inhibitor IC50=>200				
Xanthine-Oxidase-Inhibitor IC50=30 uM				
LICOCOUMARONE	Root	--	900.0	*
Activities (4)				
Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
MAO-Inhibitor IC50=60-140 uM				
MAO-Inhibitor IC50=60 uM				
Xanthine-Oxidase-Inhibitor IC50=13 uM				
LICOCOUMARONE	Rhizome	19.0	400.0	*
Activities (4)				
Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.				
MAO-Inhibitor IC50=60-140 uM				
MAO-Inhibitor IC50=60 uM				
Xanthine-Oxidase-Inhibitor IC50=13 uM				
LICOFLAVONE	Root	--	--	Chemical Constituents of Oriental Herbs (3 diff. books)
LICOFLAVONE-A	Root	--	--	*
LICOFLAVONOL	Root	--	--	*
LICOISOFLAVONE-A	Root	--	--	*
Activities (4)				
Antifeedant 1.2 ppm Russell, G. B., Phytochemical resources for crop protection, N. Z. J. Technol., 2, 1986, 127-134.				
Fungicide ED50=<50				
Pesticide				
Phytoalexin Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
LICONEOLIGNAN	Root	--	15.0	*
LICOPYRANOCOUMARIN	Root	--	500.0	*
Activities (7)				
AntiHIV 20 ug/ml				
Antiherpetic EC50=>10 ug/ml				
Antiviral EC50=>10 ug/ml				
MAO-Inhibitor IC50=60-140 uM				
MAO-Inhibitor IC50=140 uM				
Pesticide				
Xanthine-Oxidase-Inhibitor IC50=>100 uM				
LICORICE-SAPONIN-A-3	Root	5.8	1000.0	*
LICORICE-SAPONIN-A-3	Rhizome	--	290.0	*
LICORICE-SAPONIN-B-2	Root	--	0.8	*
LICORICE-SAPONIN-B-2	Rhizome	--	40.0	*
LICORICE-SAPONIN-C-2	Root	--	1.0	*
LICORICE-SAPONIN-C-2	Rhizome	--	50.0	*
LICORICE-SAPONIN-D-3	Root	--	1.0	*
LICORICE-SAPONIN-D-3	Rhizome	--	70.0	*
LICORICE-SAPONIN-E-2	Rhizome	--	120.0	*
LICORICE-SAPONIN-E-2	Root	2.4	700.0	*
LICORICE-SAPONIN-F-3	Root	--	0.4	*
LICORICE-SAPONIN-G-2	Root	0.6	1000.0	*
LICORICE-SAPONIN-H-2	Root	1.4	2100.0	*

LICORICE-SAPONIN-J-2	Root	--	0.4	*
LICORICE-SAPONIN-K-2	Root	--	0.4	*
LICORICE-SAPONIN-L-3	Root	--	300.0	*
LICORICIDIN	Root	--	11.0	*

Activities (1)

Aldose-Reductase-Inhibitor 100 uM Yamaguchi, T., Sato, J., Mihashi, H., Nomura, T. 1991. Aldose Reductase Inhibitors Containing Benzopyrans for Treatment of Diseases Associated with Diabetes. Patent, Japan Kokai Tokkyo Koho-03 68,517. 9pp.

LICORICONE	Root	--	--	*
LICORICONE	Root Bark	--	--	*
LICORIDIN	Root	--	--	*
LICORINONE	Root	--	--	Chemical Constituents of Oriental Herbs (3 diff. books)
LICORISOFLAVAN-A	Root	--	16.0	*
LICRASIDE	Root	--	600.0	*
LIQUIRITIGENIN	Sprout Seedling	--	--	*

Activities (12)

Antidepressant Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antiinflammatory

Antileukemic IC50=0.29 ug/ml Life Sciences 55: 1061.

Antispasmodic

Antiulcer

CNS-Active Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Fungicide ED50=>100

Hemoglobin-Inducer Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

MAO-Inhibitor EC50=17uM

Pesticide

Phytoalexin

LIQUIRITIGENIN	Root	--	70000.0	1.0	*
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Activities (12)

Antidepressant Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Antiinflammatory

Antileukemic IC50=0.29 ug/ml Life Sciences 55: 1061.

Antispasmodic

Antiulcer

CNS-Active Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Fungicide ED50=>100

Hemoglobin-Inducer Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

MAO-Inhibitor EC50=17uM

Pesticide

Phytoalexin

LIQUIRITIGENIN	Rhizome	30.0	1210.0	*
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Activities (12)

Antidepressant	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiinflammatory	
Antileukemic IC50=0.29 ug/ml	Life Sciences 55: 1061.
Antispasmodic	
Antiulcer	
CNS-Active	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Fungicide ED50=>100	
Hemoglobin-Inducer	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
MAO-Inhibitor EC50=17uM	
Pesticide	
Phytoalexin	

LIQUIRITIGENIN-4',7-DIGLUCOSIDE	Root	--	20.0		*
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LIQUIRITIGENIN-4'-APIOSYL-(1,2)-GLUCOSIDE	Root	--	--		*
---	------	----	----	--	---

LIQUIRITIN	Rhizome	7900.0	36490.0	1.0	*
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Activities (3)

Antiinflammatory	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiulcer	
Fungicide	

LIQUIRITIN	Root	120.0	300000.0	1.0	*
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Activities (3)

Antiinflammatory	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiulcer	
Fungicide	

LIQUIRITIN-APIOSIDE	Root	120.0	9000.0		*
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LUPIWIGHTEONE	Shoot	--	6.0		*
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MAGNESIUM	Root	3690.0	5070.0	1.33	*
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Activities (65)

AntiCFS	
AntiLyme 400-1,000 mg	
AntiMS	
AntiPMS 400-800 mg/day/wmn/orl	
AntiPMS 400-800 mg/day/wmn orl	
AntiRaynaud's 280-350 mg/day	
Antiaggregant 400 mg/day	
Antialcoholic	
Antianginal 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antianorectic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antianxiety 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiarrhythmic 400 mg/day	
Antiarthritic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiasthmatic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiatherosclerotic 400 mg/day	
Anticephalagic	
Anticlimacteric 500-750 mg/day	
Anticonvulsant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Anticoronary 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidiabetic 400-800 mg/man/day	
Antidysmenorrheic 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.

Antiendometriotic 500 mg/day	
Antienterotic	
Antiepileptic 450 mg/day	
Antifatigue	
Antifibromyalgic 200-300 mg 3x/day	
Antigastrotic	
Antiglaucomic	
Antihyperkinetic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antihypertensive	
Antihypoglycemic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiinflammatory 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinsomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antilithic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimastalgic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antimenopausal 500-750 mg/day	
Antimigraine 200 mg/day/man	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antimitral-valve-prolapse	
Antinephrolytic	
Antineurotic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiosteoporotic 500-1,000 mg/day/wmn/orl	
Antiplatelet 500-1,000 mg/day	
Antiretinopathic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antispasmodic	
Antispasmophilic 500 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antistress 500-750 mg/day	
Antistroke 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antisyndrome-X 400 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Anxiolytic 500-750 mg/day	
CNS-Depressant	Facciola, S. 1998. Cornucopia - A Source Book of Edible Plants. Kampong Publications, Vista CA. 713 pp.
Calcium-Antagonist	
Cardioprotective	
Diuretic	
Hypocholesterolemic 400 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Hypotensive 260-500 mg/day	
Immunomodulator	
Insulinogenic 400 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Laxative 300-500 mg/day	
Litholytic	
Myorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Neurotransmitter	
Tranquilizer 500-750 mg/day	
Uterorelaxant 100 mg 4 x/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Vasodilator	

MANGANESE

Root 13.0 26.0 -0.24 *

Antiamyloid-Beta	
Antibacterial MIC=250-500 ug/ml	Planta Medica, 57: A43, 1991.
Anticancer	
Antiescherichic	
Antiestrogenic	
Antifibrotic	
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antihyperpetic	Economic & Medicinal Plant Research, 5: 197.
Antiinflammatory 20 ppm	
Antileukemic IC50=>10 ug/ml	Life Sciences 55: 1061.
Antimutagenic ID50=50-100 nM	Maga, J.A. Contribution of Phenolic Compounds to Smoke Flavor. Phenolic Compounds in Food and Their Effects on Health, Ch.13.
Antioxidant 7 x quercetin	
Antiperistaltic	
Antiperoxidative	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiradicular 7 x quercetin	
Antisindhis IC50=15 ug/ml	
Antispasmodic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antistaphylococcic	
Antitumor	
Antitumor-Promoter	
Antiulcer	Fitoterapia No.5-1990.
Antiviral IC50=15 ug/ml	
Aphidifuge	
Aromatase-Inhibitor IC45=1 uM/l	Journal of Medicinal Food 2: 235.1999.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	
Choleretic	
Cytochrome-P450-Inhibitor	Pizzorno, J. 1998. Total Wellness. Prima Health, a division of Prima.
Decarboxylase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Embryotoxic	
Estrogenic EC50=0.1-25 uM/l	
Fungicide 2.5 mM	
Fungistat	Weidenborner, M., Hindorf, H., Jha, H.C., and Tsotsonos, P. 1989. Antifungal Activity of Flavonoids Against Storage Fungi of the Genus Aspergillus. Phytochemistry. 29(4): 1103-1105.
Hepatoprotective IC50=12 uM	
Hepatoprotective IC50=3.37 ppm	
Neuroprotective	
P450-Inhibitor	
Pesticide	
Serotonin-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
TNF-alpha-Inhibitor IC50=14.41 uM	
Teratogenic	
Topoisomerase-I-Inhibitor	Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. Toxicol Ind Health, 14: 223-237.
Uterotrophic EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.
cAMP-Phosphodiesterase-Inhibitor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

NEOGLYCYROL	Root	--	--	*
NEOISOLIQUIRITIN	Root	--	200.0	*

Activities (1)	
Antiinflammatory	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

NEOLIQUIRITIN	Root	--	--	*
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Activities (1)						
Antiinflammatory	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses					
NICOTIFLORIN	Leaf	--	32.0	-1.0	*	
ONOCERIN	Root	--	--		*	
ONONIN	Root	200.0	6000.0	1.41	*	
Activities (2)						
Hemolytic Irritant	Madaus, G. 1976. Lehrbuch der Biologischen Hilfsmittel. Vol., 1-3. 2862 pp. (+ 144 p. index). Georg Olms Verlag, Hildesheim. Reprint of 1938 Madaus.					
P-HYDROXY-BENZOIC-ACID	Sprout Seedling	--	0.5		*	
Activities (13)						
Antibacterial						
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.					
Antioxidant	Phenolic Compounds in Food and Their Effects on Health, 65.					
Antiradicular						
Antisickling 10.5 ug/ml						
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.					
Fungistat EC50=607 ug/ml	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.					
Immunosuppressant						
Pesticide						
Phytoalexin	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.					
Prostaglandinogenic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.					
Secretagogue	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.					
Ubiquit	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.					
POTASSIUM	Root	2500.0	3140.0	-0.93	*	
Activities (14)						
Angiotensin-Receptor-Blocker						
Antiarrhythmic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.					
Antidepressant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.					
Antifatigue	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.					
Antihypertensive						
Antispasmodic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.					
Antistroke						
Anxiolytic						
Beta-Blocker						
Cardioprotective 3,000-5,000 mg						
Cardiotoxic 18,000 mg/man/day						
Diuretic						
Hypotensive						
Vasodilator						
PYRANOCUMARIN	Root	--	--		*	
QUERCETIN	Leaf	--	7.0	-0.35	*	
Activities (176)						
11B-HSD-Inhibitor						
5-Lipoxygenase-Inhibitor IC50 (uM)=4						
ATPase-Inhibitor	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.					
Aldehyde-Oxidase-Inhibitor IC70-96=10 uM						
Aldose-Reductase-Inhibitor 100 uM						
Aldose-Reductase-Inhibitor 4 ug/ml	Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.					
Aldose-Reductase-Inhibitor IC50=0.84 ug/ml cow	Okada, Y. et al. 1995. Search for Naturally Occurring Substances to Prevent the Complications of Diabetes. II. Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation. Chem Pharm Bull 43(8):1385-1387					

Aldose-Reductase-Inhibitor IC50=0.344 uM	Mao, X. M., Zhang, J. Q. 1993. Inhibition of Aldose Reductase by Extracts of Chinese Herbal Medicine. <i>Zhongguo Zhongyao Zazhi</i> , 18(10): 623-624.
Allelochemic IC82=1 mM	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Allergenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Analgesic	
AntiCrohn's 400 mg/man/3x/day	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
AntiGTF ID50=120 ug/ml	
AntiHIV	
AntiPMS 500 mg/2x/day/wmn	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiaflatoxin IC50=25 uM	
Antiaflatoxin IC50=7.5 ppm	
Antiaggregant IC50=55 uM	<i>Economic & Medicinal Plant Research</i> , 5: 333.
Antiaggregant 30 uM	
Antiaging	
Antiallergic IC50=14 uM	Jim Duke's personal files.
Antialzheimeran	
Antianaphylactic	Meli, R., Autore, G., Di Carlo, G., Capasso, F. Inhibitory Action of Quercetin on Intestinal Transit in Mice. <i>Phytotherapy Research</i> 4(5): 201, 1990.
Antiangiogenic	
Antiarthritic	
Antiasthmatic IC50=14 uM	
Antiatherosclerotic	
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Anticarcinomic (Breast) IC50=1.5 uM	Medline (post 1990 searches filed in my computer)
Anticariogenic ID50=120 ug/ml	
Anticataract	
Anticolitic 400 mg/man/3x/day	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticomplementary	
Anticystitic 1,000 mg/day/4 weeks	
Antidepressant	
Antidermatitic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidiabetic	
Antielaastase IC50=0.8 ug/ml	
Antiencephalitic	<i>Economic & Medicinal Plant Research</i> , 5: 199.
Antiescherichic	
Antiestrogenic	
Antifeedant IC52=<1,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Antifibrosarcomic	
Antiflu	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart.
Antigastric	Rastitel'nye Resursy, 21: 85.
Antigonadotropic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antihepatotoxic	Joyeux, M., Rolland, A., Fleurentin, J., Mortier, F., and Dorfman, P. 1989. Tert-Butyl Hydroperoxide-Induced Injury in Isolated Rat Hepatocytes: A Model for Studying Anti-Hepatotoxic Crude Drugs. <i>Planta Medica</i> 56(2): 171-173, 1990.
Antiherpetic 48-150 ug/ml	
Antihistaminic IC50=<10 uM	
Antihydrophobic	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart.
Antihypertensive	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antiinflammatory 20-150 mg/kg	Fitoterapia No.5-1990.
Antileishmanic IC50=64	
Antileukemic IC50=10 uM	<i>Economic & Medicinal Plant Research</i> , 5: 225.
Antileukemic IC50=>10 ug/ml	<i>Life Sciences</i> 55: 1061.
Antileukemic 5.5-60 uM	
Antileukotriene	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antilipoperoxidant IC67=50	
Antimalarial IC50=1-6.4 ug/ml	<i>Medicinal and Poisonous Plants of the Tropics</i> . Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987.
Antimelanomic	
Antimetastatic	

Antimutagenic ID50=2-5 nM	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antimutagenic ID50=0.62 ug/ml	
Antimyocarditic	Economic & Medicinal Plant Research, 5: 199.
Antinitrosaminic	
Antinociceptive	
Antioxidant IC96=300 ppm	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antioxidant ED50=2.3 uM	Seidel, V., Verholle, M., Malard, Y., Tilleguin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98.
Antioxidant 4.7 x Vit. E	
Antioxidant IC47=10 uM	
Antipancreatic	Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY.
Antiperiodontal	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiperistaltic	
Antipermeability	
Antiperoxidant	<i>Planta Medica</i> , 57: A110, 1991.
Antipharyngitic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiplateau	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiplasmodial IC50=13-64	
Antipodriac	
Antipolio	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiproliferant 10 nM	
Antiprostanoid	
Antiprostatic	Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY.
Antipsoriac	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiradicular IC50=4.6 uM	<i>Planta Medica</i> , 56(6): 695, 1990.
Antispasmodic	
Antistreptococcic ID50=120 ug/ml	
Antithiamin	Phenolic Compounds in Food and Their Effects on Health, 69.
Antithrombic	
Antitrypanosomic IC50=13	
Antitumor 10 uM	
Antitumor (Bladder)	
Antitumor (Breast)	
Antitumor (Colon)	
Antitumor (Lung)	
Antitumor (Ovary)	
Antitumor (Skin) 20 uM	
Antitumor-Promoter	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiulcer	
Antiviral IC50=10 uM	Economic & Medicinal Plant Research, 5: 225.
Antiviral 48-150 ug/ml	Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992.
Apoptotic 20-60 uM	
Bacteristat 10 mg/ml	
Bradycardiac	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
COMT-Inhibitor	
COX-2-Inhibitor <40 uM	
Calmodulin-Antagonist	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	
Capillariprotective	Merck 11th Edition
Carcinogenic 40,000 ppm (diét) mus	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp.
Catabolic	
Copper-Chelator	
Cyclooxygenase-Inhibitor	
Cytochrome-P450-1A2-Inhibitor	
Cytotoxic ED50=70 ug/ml	Matsukawa, Y., et al. The Effect of Quercetin and Other Flavonoids on Cell Cycle Progresssion and Growth of Human Gastric Cancer Cells. <i>Planta Medica</i> , 56(6): 677, 1990.
Cytotoxic IC82=100 ug/ml	<i>Planta Medica</i> , 57: A113, 1991.
Deiodinase-Inhibitor	Jim Duke's personal files.
Diaphoretic?	Lawrence Review of Natural Products, Dec-90.
Differentiator 5.5 uM	
Estrogenic 10% genistein	

Fungicide	
Glucosyl-Transferase-Inhibitor ID50=120 ug/ml	
HIV-RT-Inhibitor IC50=<1 ug/ml	Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. <i>Journal of Natural Products</i> , 53(5): 1234-1240, 1990.
Hemostat	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hepatomagenic 5,000 ppm (diet) rat	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Hepatoprotective	
Hypoglycemic 100 mg/kg orl rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Inotropic	
Insulinogenic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Juvabional	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Larvostat 8,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Lipoxygenase-Inhibitor IC11=1.25 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690.
Lipoxygenase-Inhibitor IC50=0.1-5 uM	
MAO-A-Inhibitor	
MMP-9-Inhibitor 20 uM	
Mast-Cell-Stabilizer	
Metal-Chelator (Copper)	Seidel, V., Verholle, M., Malard, Y., Tilleguin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98.
Metalloproteinase-Inhibitor IC50=>42 uM	
Mutagenic	
NADH-Oxidase-Inhibitor	
NEP-Inhibitor IC50=>42 uM	
NF-kB-Inhibitor	
NO-Inhibitor IC>50=125 uM	
NO-Inhibitor IC50=20 uM	
NO-Synthase-Inhibitor 5-50 uM	
Neuroprotective 5-25 uM	
Ornithine-Decarboxylase-Inhibitor <10 uM	
P450-Inducer 5 uM	Father Nature's Farmacy: The aggregate of all these three-letter citations.
P450-Inhibitor 50-100 uM	Father Nature's Farmacy: The aggregate of all these three-letter citations.
PGE2-Inhibitor	
PTK-Inhibitor 0.4-24 uM	
Pesticide	
Phospholipase-Inhibitor	
Plasmodicide	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Proliferant	
Prostaglandin-Synthesis-Inhibitor 40 ug/ml	Ibewuiké, J. C., Ogunbamila, F. O., Ogundaini, A. O., Okeke, I. N., Bohlin, L. 1997. Antiinflammatory and Antibacterial Activities of C-methylflavonol from <i>Piliostigma thonningii</i> . <i>Phytotherapy Research</i> , 11(4): 281-284.
Protein-Kinase-C-Inhibitor	Naim, M., Zehavi, U., Nagy, S., and Rouseff, R.L. Hydroxycinnamic Acids as Off-Flavor Precursors in Citrus Fruits and Their Products. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.14.
Quinone-Reductase-Inducer 6 uM	Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216.
Quinone-Reductase-Inducer 13 uM	
TNF-alpha-Inhibitor IC50=3.11 uM	
Teratologic	
Topoisomerase-I-Inhibitor IC50=12.8 ug/ml	
Topoisomerase-I-Inhibitor IC50=42 uM	
Topoisomerase-II-Inhibitor IC50=1-6.9 ug/ml	
Topoisomerase-II-Inhibitor IC50=23-40 uM	
Tumorigenic 0.1% diet orl rat/yr	Jim Duke's personal files.
Tyrosinase-Inhibitor ID50=70 uM	
Tyrosine-Kinase-Inhibitor	<i>Economic & Medicinal Plant Research</i> , 6: 170.
VEGF-Inhibitor	
Vasodilator	
Xanthine-Oxidase-Inhibitor IC50=>0.4 ug/ml	<i>Chem. & Pharm. Bull.</i> 38: 1772.

Xanthine-Oxidase-Inhibitor IC50=10.6 ug/ml

Xanthine-Oxidase-Inhibitor 3.1 uM

cAMP-Phosphodiesterase-Inhibitor

Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

iNOS-Inhibitor IC50=20 uM

QUERCETIN-3,3'-DIMETHYLETHER Leaf -- 48.0 *

Activities (1)

Antiviral

RUTIN Leaf -- 53.0 -1.0 *

Activities (87)

5-HT-Inhibitor

Aldehyde-Oxidase-Inhibitor IC27-52=10 uM

Aldose-Reductase-Inhibitor 100 uM

Aldose-Reductase-Inhibitor 4 ug/ml

Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.

Allelochemic

AntiCVI 270 mg/man/day

Antiaggregant ED50=33 nmol/kg iv

Antiallergic

Antiapoplectic

Antiatherogenic

Antiatherosclerotic

Antibacterial

Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

Anticancer

Anticapillary-Fragility 20-100 mg orl man

Merck 7th Ed.

Anticataract

Anticlastogen

Anticonvulsant

Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

Antidementia

Bruneton, J. 1999. Pharmacognosy, Phytochemistry, Medicinal Plants. 2nd Ed. Lavoisier Publishing, Paris. 1119 pp.

Antidermatitic

Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

Antidiabetic

Jin, G-Z., Yamagata, Y., and Tomita, K.-i. 1989. Structure of Rutin Pentamethanol. Chem. Pharm. Bull. 38(2): 297-300, 1990.

Antiedemic 270 mg/day orl man

Antierhythmic

Antifeedant

Antiglaucomic 60 mg/day

Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.

Antihematuric

Antihemorrhoidal

Antihepatotoxic

Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.

Antihyperpetic

Economic & Medicinal Plant Research, 5: 198.

Antihistaminic

Antihypertensive

Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.

Antiinflammatory 20 mg/kg

Antimalarial IC50=>100 ug/ml

Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using Plasmodium falciparum*. Journal of Ethnopharmacology, 15: 201-209, 1986.

Antimelanomic

Antimetastatic

Antimutagenic ID50=2-5 nM

Antinephritic

Antinociceptive

Antioxidant IC28=30 ppm

Antioxidant IC50=120 uM

Antioxidant IC54=10 uM

Antiperoxidant IC50=10-20 uM

Antiplatelet

Antiproliferant 50-75 uM/l

Antiprotozoal

Antipurpuric

Antiradicular 9 x quercetin

Antispasmodic	
Antisunburn	
Antithrombogenic EC50=500 nM	
Antithyroid IC50=68 uM	
Antitrypanosomic 100 mg/kg	Planta Medica, 57: A44, 1991.
Antitumor	
Antitumor-Promoter	
Antiulcer	
Antivaricose	
Antiviral	
Apoptotic 75 uM/l	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Capillarioprotective	Merck 11th Edition
Catabolic	
Chemopreventive	
Cytoprotective IC50=3 uM	
Estrogenic?	Economic & Medicinal Plant Research, 6: 189.
Hemostat	
Hepatomagentic 20,000 ppm (diet) rat	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Hepatoprotective 20 mg/kg rat	
Hypocholesterolemic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Hypotensive	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Immunomodulator	
Insecticide	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
Insectiphile	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Juvabional	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Larvistat IC95=4,000- 8,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Lipoxygenase-Inhibitor IC75=2.5 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690.
Mutagenic	Economic & Medicinal Plant Research, 6: 189.
Myoprotective	
Myorelaxant	Economic & Medicinal Plant Research, 6: 189.
Oviposition-Stimulant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
PAF-Inhibitor	
Pesticide	
Protisticide	
Radioprotective	
Sunscreen	
Topoisomerase-II- Inhibitor IC50=1 ug/ml	Bernard, F. X., Sable, S., Cameron, B., Provost, J., Desnottes, J. F., Crouzet, J., Blanche, F. 1997. Glycosylated Flavones as Selective Inhibitors of Topoisomerase IV. Antimicrobial Agents & Chemotherapy, 41: 992-998.
Vasodilator	
Vasopressor	
cAMP-Phosphodiesterase- Inhibitor	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).

SAPONINS Root 60000.0 140000.0 1.74 Chemical Constituents of Oriental Herbs (3 diff. books)

Activities (5)

- Antihepatomic
- Antimutagenic
- Antitumor (Lung)
- Antitumor (Ovary)
- Immunomodulator

SCOPOLETIN Shoot -- 2.0 *

Activities (44)

Aldose-Reductase-Inhibitor IC50=6.2 ug/ml cow	Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation.Chem Pharm Bull43(8):1385-1387
Allelochemic IC89=2 mM	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Analgesic	
Anesthetic	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Antiadrenergic	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Antiaflatoxin IC50=65 uM	
Antiaflatoxin 11.4 ppm	
Antiarrhythmic	
Antiasthmatic	
Antibacterial	Jeffery B., Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antibronchoconstrictor	
Anticholinergic	
Antiedemic	
Antifeedant	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Antihepatotoxic	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
Antiinflammatory ED 1-10 ug/ear	
Antileukotrienogenic	
Antimutagenic	Mills, Simon and Bone, Kerry. 2000. Phytotherapy. Churchill Livinston, Edinburgh.
Antioxidant	
Antiproliferant	
Antiprostaglandin	
Antiseptic	
Antispasmodic	
Antitumor 2.9 ug/ml	
Apoptotic	
Bronchorelaxant	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
CNS-Depressant	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
CNS-Stimulant	Watt, J.M. and Breyer-Brandwijk, M.G. 1962. The Medicinal and Poisonous Plants of Southern and Eastern Africa. E. & S. Livingstone, Ltd. Edinburg & London. 1457 pp.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cholagogue	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Choleretic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Cytotoxic	
Fungicide 2 mM	
Hepatoprotective	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Herbicide	Jeffery B., Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Hypoglycemic	Economic & Medicinal Plant Research, 6: 165
Hypotensive	
MAO-Inhibitor	
Musculotropic	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Myorelaxant	
Pesticide	
Phytoalexin	
Phytohormonal	Jeffery B., Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Uterosedative	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

SIGMOIDIN-B

Shoot -- 7.0 *

Activities (1)

Beta-Adrenergic Receptor Blocker 25 mg/kg igs mus	Fomum, Z. T. et al. 1984. Erythrina Studies. Part 6: Pharmacological Studies on Sigmoidin A, B and C, Novel Flavonones Isolated from Erythrina sigmoidea. Rev Sci Technol (Health Sci Ser), 1: 55-68.
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SODIUM

Root 323.0 1340.0 0.11 *

Activities (1)

Hypertensive	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
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SUCROSE

Root -- -- Chemical Constituents of Oriental Herbs (3 diff. books)

Activities (14)

Aggregant	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antihiccup 1 tsp	Martindale's 29th
Antiphthalmic	Martindale's 29th
Antioxidant	Merck 11th Edition
Atherogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Collyrium	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Demulcent	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Flatugenic	Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek (<i>Trigonella foenum graecum</i> L.). <i>Plant Foods for Human Nutrition</i> . 46: 77-84, 1994.
Hypercholesterolemic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Preservative	Merck 11th Edition
Sweetener 1 x sucrose	Merck 11th Edition
Triglycerigenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Uricogenic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Vulnerary	Martindale's 29th

URALENE	Leaf	--	26.0	*
URALENIC-ACID	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
ZINC	Root	11.0	13.0	-0.49 *

Activities (77)

ACE-Inhibitor	
Analgesic	
AntiBPH 25-60 mg/day	
AntiCrohn's	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
AntiHIV	
Antiacne 135 mg/day	
Antiacrodermatitic 8-34 mg/day/orl/chd	Martindale's 29th
Antialcoholic	
Antialopepic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antialzheimeran 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiangiogenic	
Antianorexic	Martindale's 29th
Antiarthritic 50 mg/3x/day/orl/man	
Anticanker 100 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticataract 30 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Anticoeliac	Martindale's 28th
Anticold 50 mg	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticolitic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Anticoronary 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidandruff	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antidementia	
Antidiabetic 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antidote (Cadmium)	Let's Live, May 1989.
Antidysgeuzic	
Antieczemic 150 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiencephalopathic	Martindale's 29th
Antiepileptic 100 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antifibrotic 30 mg	
Antifuruncular 45 mg/3x/day/man	Martindale's 28th
Antihangover 15 mg	
Antiherpetic? 25-60 mg/day	
Antiimpotence	Martindale's 29th
Antiinfective 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinfertility 60 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antiinsomniac	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antileptic	Martindale's 29th
Antileukonychic	
Antilymphomic	
Antimaculitic	

Antimetastatic	
Antineuropathic	
Antinyctalopic	
Antiobesity 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiosteoporotic	
Antiperiodontitic	
Antiplateau	Martindale's 29th
Antiprolactin	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiprostatic 50 mg/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antirheumatic	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Antiseptic 50 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antispare-Tire 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antistomatitic 50 mg/man/3x/day	Martindale's 28th
Antisyndrome-X 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antitinnitic 60-120 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Antitriglyceride 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Antiulcer 50 mg/3x/day/man	Martindale's 28th
Antiulcer 88 mg/rat/day/15 days	
Antiviral?	Martindale's 29th
Astringent	Martindale's 28th
Collagenic	
Copper-Antagonist	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Deodorant	Martindale's 29th
Detoxicant (Alcohol)	
Ergogenic	
Hypotensive 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Immunomodulator	
Immunostimulant	Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp.
Immunosuppressant 300 mg/day/6 wks/orl/man	Martindale's 29th
Insulinogenic 30 mg/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Leptingenic 30-60 mg/man/day	Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95
Mucogenic	Li, K.M. Effect of zinc sulphate on acetic acid-induced gastric ulceration in rats. J. Pharm. Pharmacol. 42: 657-659, 1990.
NF-kB-Inhibitor	
Pesticide	
Spermigenic 60 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Testosteronigenic 60 mg/day	Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp.
Trichomonicide	Martindale's 29th
Vulnerary	Martindale's 28th