

List of All Chemicals

P Laburnum alpinum (Fabaceae)

How used

Medicinal

*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
5-0-METHYLGENISTEIN	Wood		--	--		*
GENISTEIN	Leaf		--	--		*

Activities (81)

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.
Aldose-Reductase-Inhibitor IC50=10 uM	
Alpha-Reductase-Inhibitor IC50=35 uM	
Antiaggregant 1-10 ug/ml	Medline (post 1990 searches filed in my computer)
Antiangiogenic 150 uM	
Antiatherosclerotic	Journal of Medicinal Food 2: 163.1999.
Anticancer (Breast) IC50=2.6-6.7 ug/ml	
Anticarcinomic (Breast) IC50=?640 uM	Medline (post 1990 searches filed in my computer)
Anticlimacteric	Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
Antiendocytotic 100 ug/ml	Medline (post 1990 searches filed in my computer)
Antiestrogenic	
Antifertility	
Antihemolytic	
Antiimplantation	
Antiinflammatory	Journal of Medicinal Food 2: 179.1999.
Antisclerotic	Medline (post 1990 searches filed in my computer)
Antileukemic >50 ug/ml (185 uM)	
Antileukemic IC50=0.010 ug/ml	Life Sciences 55: 1061.
Antileukotriene IC50=10-15 uM	Medline (post 1990 searches filed in my computer)
Antilymphomic	
Antimelanomic	Medline (post 1990 searches filed in my computer)
Antimicrobial	
Antimitogenic IC50=12 uM	
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.
Antineuroblastomic	
Antiosteoporotic	
Antioxidant	Phenolic Compounds in Food and Their Effects on Health, 64.
Antiproliferative 5-45 uM	
Antiprostataenomic 8-27 ug/ml	Medline (post 1990 searches filed in my computer)
Antiprostatic IC50=35 uM	
Antispasmodic IC50=34 uM	
Antitumor (Breast)	
Antitumor (GI)	
Antitumor (Ovary)	
Antitumor (Prostate)	
Antitumor (Stomach)	
Antiulcer?	
Antiviral	
Apoptotic	
Aromatase-Inhibitor IC30=1 uM/l	Journal of Medicinal Food 2: 235.1999.
Calcium-Antagonist 50 uM gpg	
Cancer-Preventive	Slitt, B. A. Why George Should Eat Brussels: Davenport, Co. Milwaukee, WI 1999, 200 pp.

Cancer-Preventive	Salt, F. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	Journal of Medicinal Food 2: 163.1999.
Catechol-O-Methyltransferase-Inhibitor	
Cytotoxic >50 ug/ml (185 uM)	Medline (post 1990 searches filed in my computer)
Cytotoxic IC89=10 ug/ml	Planta Medica, 57: A113, 1991.
DOPA-Decarboxylase-Inhibitor	
Estrogen-Agonist 0.1-1 uM/l	Journal of Medicinal Food 2: 139.1999.
Estrogenic EC50=0.1-25 uM/l	
Flatulent	
Fungicide 2.5 mM	Geibel, M. 1994. Sensitivity of the Fungus <i>Cytospora personii</i> to the Flavonoids of <i>Prunus cerasus</i> . <i>Phytochemistry</i> . 38(3): 599-601. 1995.
Fungicide ED50=50->100	
Fungistat IC34=200 uM	
Histidine-Kinase-Inhibitor IC50=110 uM	Medline (post 1990 searches filed in my computer)
Hypocholesterolemic ED50=0.5 mg/kg	
Immunostimulant 2-20 mg/kg orl mus	
Lipase-Inhibitor	
MAO-Inhibitor IC50=60-140 uM	
MAO-Inhibitor IC50=95	
MDR-Inhibitor 200 uM	Castro, A. F., Altenberg, G. A. 1997. Inhibition of Drug Transport by Genistein in Multidrug-Resistant Cell Expressing P-Glycoprotein. <i>Biochem Pharmacol</i> , 53(1): 89-93.
NADH-Ubiquinone-Oxidoreductase-Inhibitor	
Natriuretic	
Ornithine-Decarboxylase-Inhibitor	
PTK-Inhibitor 10-100 uM	
Peroxidase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Pesticide	
Phytoalexin	Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . Plenum Press, New York. 445 pp.
Pituitary-sensitizer	Medline (post 1990 searches filed in my computer)
Quinone-Reductase-Inducer IC50=4.6 ug/ml	
Topoisomerase-I-Inhibitor IC50=250 ppm	
Topoisomerase-I-Inhibitor 1-10 ug/ml	Okura, A., Arakawa, H., Oka, H., Yoshinari, T., Monden, Y. 1988. Effect of Genistein on Topoisomerase Activity and on the Growth of [VAL 12]HA-RAS-Transformed NIH 3T3 Cells. <i>Biochem Biophys Res Commun</i> , 157: 183-189.
Topoisomerase-II-Inhibitor IC50=1-150 uM	
Topoisomerase-II-Inhibitor 2-7.5 ug/ml	
Topoisomerase-II-Inhibitor IC50=30 ug/ml	Constantinou, A., Mehta, R., Runyan, C., Rao, K., Vaughan, A., Moon, R. 1995. Flavonoids as DNA Topoisomerase Antagonists and Poisons: Structure-Activity Relationships. <i>J Natural Products</i> , 58: 217-225.
Topoisomerase-II-Inhibitor 20 uM	Markovits, J., et al. 1989. Inhibitory Effects of the Tyrosine Kinase Inhibitor Genistein on Mammalian DNA Topoisomerase II. <i>Cancer Research</i> , 49: 5111-5117.
Topoisomerase-II-Poison	Journal of Medicinal Food 2: 167.1999.
Trypanosomastat	Medline (post 1990 searches filed in my computer)
Tyrosine-Kinase-Inhibitor	
Uterotrophic ED50=0.5 mg/kg	
Uterotrophic EC50=0.1-25 uM/l	
VEGF-Inhibitor	