

# List of All Chemicals

## **P** *Alnus glutinosa* (Betulaceae)

### Common name(s)

Black Alder

### 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 <input type="text" value="All"/>	Low PPM	High PPM	StdDev	*Reference
3-BETA-HYDROXYGLUTIN-5-EN	Leaf	--	--		*
ALNINCANONE	Plant	--	--		*
ALNULIN	Bark	--	--		*
ALNUSFOLIENDIOLONE	Leaf	--	--		*
BETA-SITOSTEROL	Bark	--	--		*

**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. Journal of Ethnopharmacology, 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 Vaccinium myrtillus (Bilberry) Fruits and Cell Cultures. Plant Sci., 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. Journal of Ethnopharmacology, 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. Journal of Ethnopharmacology, 28: 221-234, 1990.
Antigonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990.
Antihyperlipoproteinaemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiinflammatory	
Antileukemic	
Antilymphomic	
Antimutagenic 250 ug/ml	
Antiophidic 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. Journal of Ethnopharmacology, 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. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Antitumor (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from Vaccinium myrtillus (Bilberry) Fruits and Cell Cultures. Plant Sci., 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 Artemisia annua. Plant Science, 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 Melodorum fruticosum. Phytochemistry. 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. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Gonadotrophic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 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. Journal of Ethnopharmacology, 27: 243-275, 1989.
Hypolipidemic 2-6 g/day	
Pesticide	
Spermicide	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. Journal of Ethnopharmacology, 28: 221-234, 1990.
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Ulcerogenic 500 mg/kg ipr rat	

**BRASSINOLIDE**

Plant

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**Activities (3)**

Juvabional	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	
Phytohormonal 1 ppm	Russell, G. B., Phytochemical resources for crop protection, N. Z. J. Technol., 2, 1986, 127-134.

**CASTASTERONE**

Plant

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**CITRULLIN**

Bark

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DELTA-AMYRENONE	Leaf	--	--	*
EMODIN	Bark	--	--	*

#### Activities (58)

AGEs-Inhibitor IC50=118 uM

Aldose-Reductase-Inhibitor IC50=15.9 uM

Allergenic Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.

AntiMRSA MIC 2-64 ug/ml

Antiaggregant

Antiangiogenic

Antibacterial

Anticytomegalovirus ED50=1.1 ug/ml

Antifeedant Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

Antiinflammatory 15 mg/kg

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

Antilymphomic

Antimutagenic

Antineoplastic

Antiplaque ED50=1.1 ug/ml

Antiproliferant IC50=20-30 uM

Antisarcomic

Antiseptic

Antispasmodic 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.

Antisprout

Antitumor (Breast)

Antiulcer 15 mg/kg

Antivaginitic Tillotson, A. K. (with Abel, Jr., R., Tillotson, N.H., Bajracharya, V.M.B.). 2001. The One Earth Herbal Sourcebook: Everything You Need to Know about Chinese, Western, and Ayurvedic Herbal Treatments. Twin Streams, Kensington Publishing Corp. NY,NY. 596 pp

Antiviral ED50=1.1 ug/ml

Antiviral EC50=1.1

CNS-Depressant 15 mg/kg ipr mus

COX-2-Inhibitor

Cathartic Merck 11th Edition

Collagenase-Inhibitor IC50=40 uM

Cytotoxic CD50=2.6 ug/ml

Differentiator IC50=20-30 uM

Estrogenic

Genotoxic

Gonadotropic

Hypolipidemic

Immunostimulant

Immunosuppressant

Leucocytogenic

MMP-2-Inhibitor

MMP-7-Inhibitor

MMP-9-Inhibitor

Mutagenic

NO-Inhibitor IC50=60.7 uM

PGE2-Inhibitor

PTK-Inhibitor 10-100 uM

PTK-Inhibitor IC50=19-37 uM

Pesticide

Prostaglandin-Synthesis-Inhibitor IC50=23 uM/ml Mueller, S. O., Stopper, H. 1999. Characterization of the Genotoxicity of Anthraquinones in Mammalian Cells. Biochimica & Biophysica Acta, 1428: 406-414.

Protein-Kinase-C-Inhibitor IC50=25 uM

Purgative ED50=>500 mg/kg orl mus

Styptic

Topoisomerase-II-Inhibitor 1 mM	Muller, S. O., Eckert, I., Lutz, W. K., Stopper, H. 1996. Genotoxicity of the Laxative Drug Components Emodin, Aloe-emodin and Danthron in Mammalian Cells: Topoisomerase II Mediated? <i>Mutat Res</i> , 371: 165-173.
Topoisomerase-II-Inhibitor IC50=7 uM/ml	Mueller, S. O., Stopper, H. 1999. Characterization of the Genotoxicity of Anthraquinones in Mammalian Cells. <i>Biochimica &amp; Biophysica Acta</i> , 1428: 406-414.
Trichomonicide	
Tyrosine-Kinase-Inhibitor	
Vasodilator	
Vasorelaxant	
iNOS-Inhibitor	

GLUTINONE	Bark	--	--	*
HYPEROSIDE	Bark	--	--	*

Activities (30)	
Aldose-Reductase-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.
Analgesic	
Antiaging	
Antibacterial MIC=250-500 ug/ml	<i>Planta Medica</i> , 57: A43, 1991.
Anticancer	
Anticapillary-Fragility	Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp.
Antidermatitic	
Antielastase IC50=0.15 ug/ml	
Antiflu	Leung, A.Y., <i>Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics</i> , John Wiley & Sons, New York, 1980.
Antihepatotoxic	Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp.
Antiinflammatory 1/4 indomethacin	<i>Planta Medica</i> , 57: A131, 1991.
Antiischemic	
Antinociceptive	
Antioxidant IC50=4.6 uM	
Antiradicular	
Antitussive	
Antiviral	
Antiwrinkle	
Calcium-Antagonist	
Cancer-Preventive	Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Capillarifortificant	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Capillarigenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Cyclooxygenase-Activator 100 uM	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Diuretic	
Hepatoprotective IC80=30 ug/ml	Mayumi Ito (nee Someya), et al. 1990. Hepatoprotective Compounds from <i>Canarium album</i> and <i>Euphorbia nematocypha</i> . <i>Chem. Pharm. Bull.</i> 38(8): 2201-2203, 1990.
Hypotensive ivn dog	
Pesticide	
Tissue-Thromboplastin-Inhibitor IC50=20.8 uM	
Xanthine-Oxidase-Inhibitor	
cAMP-Inhibitor IC50=0.14 mg/ml	Schussler, M., Fricke, U., Nikolov, N., and Holzl, J. 1991. Comparison of the Flavonoids Occurring in <i>Crataegus</i> species and Inhibition of 3',5'-Cyclic Adenosine Monophosphate Phosphodiesterase. <i>Plant Medica</i> 57: Suppl Issue 2. p.A-133.

L-ORNITHINE	Leaf	--	--	*
LUPEOL	Bark	--	--	*

**Activities (21)**

AntiEBV	
Antiangiogenic 30-50 ug/ml	
Antiedemic	
Antiflu	
Antihyperglycemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiinflammatory 1/3 indomethacin	
Antilithic 25 mg/kg/day	
Antimalarial IC50=46.8 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.
Antioxalate 25 mg/kg/day	
Antioxidant 25 mg/kg/day	
Antiperoxidant 25 mg/kg/day	
Antiprostaglandin	
Antirheumatic	
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiurethrotic	
Antiviral	
Cytotoxic 50-500 ppm	
FPTase-Inhibitor IC50=65 ug/ml	
Hypotensive	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	
TOPO-2-Inhibitor IC50=10.4 uM	

PHLOBAPHENE	Bark	--	--	*
PROTOALNULIN	Bark	--	--	*
SUCROSE	Leaf	--	--	*

**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
Antiophthalmic	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 (Trigonella foenum graecum L.). Plant Foods for Human Nutrition. 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

TANNIN	Bark	--	200000.0	0.52	*
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