

List of All Chemicals

P Paeonia lactiflora (Paeoniaceae)

Common name(s)

Chih-Shao; White Peony; Common Garden Peony; Bai Shao (Chinese); Peony

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 parts ... | Low PPM | High PPM | StdDev | *Reference |
|---|-----------------------|------------|-------------|--------|---|
| (Z)-1S,5R-ALPHA-PINEN-10-YL-ALPHA-VICIANOSIDE | Plant | -- | -- | | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| 1,2,3,4,6-PENTA-O-GALLOYL-GLUCOSE | Root | -- | -- | | Economic & Medicinal Plant Research, 1: 53. |
| Activities (3) | | | | | |
| Antiherpetic | | | | | Economic & Medicinal Plant Research, 5: 194. |
| Antiviral | | | | | Economic & Medicinal Plant Research, 5: 194. |
| Pesticide | | | | | |
| 13-METHYLMYRISTIC-ACID | Flower | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| ALBIFLORIN | Root | -- | -- | | Chemical Constituents of Oriental Herbs (3 diff. books) |
| ARSENIC | Root | -- | 0.12 | -0.2 | 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 | | | | | |
| ASTRAGALIN | Plant | -- | -- | | Chemical Constituents of Oriental Herbs (3 diff. books) |
| 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. Phytochemistry, 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. Chem. Pharm. Bull. 38(4): 1049-1052, 1990. |
| Immunostimulant | | | | | |
| BENZOIC-ACID | Root | -- | 11000.0 | 1.0 | Chemical Constituents of Oriental Herbs (3 diff. books) |

Activities (20)

| | |
|----------------------------------|--|
| Allergenic | Martindale's 28th |
| Anesthetic | |
| Antibacterial 33-1,250 ppm | |
| Antibacterial MBC=800 ug/ml | |
| Antiotitic | Martindale's 28th |
| Antipyretic | |
| Antisalmonella MIC=800 ug/ml | |
| Antiseptic 800 ug/ml | |
| Antiyeast MFC=1,600 ug/ml | |
| Choleretic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Expectorant | |
| Flavor FEMA 250 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide MFC=1,600 ug/ml | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Pesticide | |
| Phytoalexin | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Tyrosinase-Inhibitor ID50=710 uM | |
| Tyrosinase-Inhibitor ID50=640 uM | |
| Uricosuric | |
| Vulnerary | |

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|---------------------|--------|----|----|--|
| BENZOYLPAEONIFLORIN | Root | -- | -- | Chemical Constituents of Oriental Herbs (3 diff. books) |
| BETA-GLUCOGALLIN | Flower | -- | -- | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| BETA-SITOSTEROL | Flower | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |

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 <i>Internat. J. Crude Drug Res.</i> 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., <i>Glossary of Plant-Derived Insect Deterrents</i> , 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 | |
| Antiophidic 2.3 mg mus | <i>Economic & Medicinal Plant Research</i> , 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. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidicide | Recently became <i>Internat. J. Crude Drug Res.</i> 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 | |

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|---------------------------------|--------|---------|---------|------|--|
| BETA-SITOSTEROL-ALPHA-GLUCOSIDE | Flower | -- | -- | | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients 2nd Ed.</i> John Wiley & Sons, New York. 649 pp. |
| CALCIUM | Root | 10300.0 | 40600.0 | 3.64 | * |

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 | |
| Antiarthritic 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 | |

CIS-9,12-OCTADECADIENOIC-ACID Root -- -- Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

COPPER Root 3.0 6.0 -0.63 *

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. |

DAUCOSTEROL Root -- -- Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activities (5)

| | |
|---|---|
| Aldose-Reductase-Inhibitor 0.1 mM/l rat (weak activity, 31.9% inhibition) | Fujita, T., Ohira, K., Miyatake, K., Nakano, Y., Nakayama, M. 1995. Inhibitory Effect of Perillosides A and C, Related Monoterpene Glucosides on Aldose Reductase and Their Structure-Activity Relationships. Chem Pharm Bull, 43(6): 920-926. |
| Antileukemic | |
| Antispasmodic 20 mg/kg | =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp |
| Antitumor | |
| Hypoglycemic | Economic & Medicinal Plant Research, 6: 158. |

DECAGALLOYL-GLUCOSE Root -- -- Economic & Medicinal Plant Research, 1: 53.

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

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

Activities (62)

| | |
|---------------------------------------|--|
| ACE-Inhibitor IC50=7.7 mM/l | |
| Analgesic | |
| AntiHIV | |
| AntiMRSA | |
| Antiadenovirus | Economic & Medicinal Plant Research, 5: 194. |
| Antiallergenic | Dorsch, W., Wagner, H. New Antiasthmatic Drugs from Traditional Medicine? Int Arch Allergy Appl Immunol 94: 262-265, 1991. |
| Antianaphylactic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiangiogenic | |
| Antiasthmatic | Watt, J.M., and Breyer-Brandwijk, M.G. The Medicinal and Poisonous Plants of Southern and Eastern Africa. 1962. |
| Antibacterial MIC=1,000 ug/ml | |
| Antibronchitic | Dorsch, W., Wagner, H. New Antiasthmatic Drugs from Traditional Medicine? Int Arch Allergy Appl Immunol 94: 262-265, 1991. |
| Anticancer | |
| Anticarcinomic ED50=3 | |
| Antiescherichic | |
| Antifibrinolytic | Economic & Medicinal Plant Research, 1: 53. |
| Antiflu | Economic & Medicinal Plant Research, 5: 194. |
| Antihepatotoxic | Okuda, T., Yoshida, T., and Hatano, T. Antioxidant Effects of Tannins and Related Polyphenols. Phenolic Compounds in Food and Their Effects on Health, Ch.7 p.93. |
| Antiherpetic EC50=>10 ug/ml | |
| Antiinflammatory | Kroes, B.H., et al. 1991. Anti-Inflammatory Activity of Gallic Acid. Planta Medica, 58(6): 499. |
| Antileishmanic EC50=4.4 ug/ml | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antinitrosaminic | |
| Antioxidant IC44=33 ppm | |
| Antioxidant 7 x quercetin | |
| Antioxidant 2/3 BHA | |
| Antiperiodontitic 10 ug/ml | |
| Antiperoxidant IC50=69 uM | |
| Antipolio | Economic & Medicinal Plant Research, 5: 194. |
| Antiproteolytic 10 ug/ml | |
| Antiradicular 7 x quercetin | |
| Antiradicular IC50=4.9 uM | |
| Antiseptic | 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. |
| Antistaphylococcic MIC=1,000 ug/ml | |
| Antitumor | |
| Antitumor-Promoter | |
| Antiviral | |
| Apoptotic | |
| Astringent | 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. |
| Bacteristat | Lamikanra, A., Ogundaini, A.O., and Ogungbamila*, F.O. Antibacterial Constituents of Alchornea cordifolia Leaves. Phytotherapy Research 4(5): 198. |
| Bronchodilator | 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. |
| Candidicide | |
| Carcinogenic | |
| Choleretic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Cyclooxygenase- Inhibitor | |
| Cytotoxic 500 uM | |
| Floral-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Gram(+)-icide MIC=1,000 ug/ml | |
| Gram(-)-icide MIC=1,000 ug/ml | |
| Hemostat | |
| Hepatoprotective | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |
| Immunomodulator | |
| Immunostimulant | McKenna, D. J., Hughes, K., and Jones, K. 2000. Green Tea Monograph. Alternative Therapies, 6(3): 61-82. |

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|---------------------------------------|---|--|--|--|--|
| Immunosuppressant | | | | | |
| Insulin-Sparing | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Myorelaxant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| NO-Inhibitor IC-26=250 uM | | | | | |
| Nephrotoxic | Martindale's 29th | | | | |
| Pesticide | | | | | |
| Styptic | | | | | |
| Topoisomerase-I-Inhibitor | Hamada, S. I., Kataoka, T., Woo, J. T., Yamada, A., Yoshida, T., Nishimura, T., Otake, N., Nagai, K. 1997. Immunosuppressive Effects by Gallic Acid and Chebulagic Acid on CTL-Mediated Cytotoxicity. Biol Pharm Bull, 20: 1017-1019. | | | | |
| Xanthine-Oxidase-Inhibitor IC50=24 uM | Hatano, T., Yasuhara, T., Yoshihara, R., Agata, I., Noro, T., and Okuda, T. 1989. Effects of Interaction of Tannins with Co-existing Substances.VII. Inhibitory Effects of Tannins Related Polyphenols on Xanthine Oxidase. Chem. Pharm. Bull. 38(5): 1224-1229 | | | | |

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|------------------------|--------|---------|---------|--|--|
| GALLOYL-TANNINS | Root | 20000.0 | 40000.0 | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| GLUCOGALLIN | Flower | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| GLUCOSE | Root | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |

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| 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 | | | | |
| Antivaricose | 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. | | | | |

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|--------------------|------|----|----|--|---|
| HEDERAGENIN | Root | -- | -- | | Economic & Medicinal Plant Research, 1: 53. |
|--------------------|------|----|----|--|---|

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|-------------------------------|--|--|--|--|--|
| Activities (9) | | | | | |
| Allergenic | Mitchell, J. and Rook, A.J. 1923. Botanical Dermatology: plants and plant products injurious to the skin. Vancouver: Greengrass, 1979. xiii, 787 p.: ill. | | | | |
| Anticapillary-Fragility | | | | | |
| Antiedemic | | | | | |
| Antifibrinolytic | Economic & Medicinal Plant Research, 1: 53. | | | | |
| Antiinflammatory | | | | | |
| Antitrypanosomic MIC=50 ug/ml | | | | | |
| Fungicide 7.5-25 ppm | 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. | | | | |
| Molluscicide 7.5-25 ppm | 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. | | | | |
| Pesticide | | | | | |

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|-----------------------------|--------|------|------|-------|--|
| HEPTAGALLOYL-GLUCOSE | Root | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| HEXAGALLOYL-GLUCOSE | Flower | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| IRON | Root | 40.0 | 47.0 | -0.37 | * |

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|------------------------------------|--|--|--|--|--|
| 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 | | | | | |

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

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|------------------------|--|--|--|--|--|
| Activities (75) | | | | | |
| 11B-HSD-Inhibitor | | | | | |

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|---|---|
| 5-Lipoxygenase-Inhibitor IC50 (uM)=20 | |
| Aldose-Reductase-Inhibitor 100 uM | Oliveira, T. T., Nagem, T. J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. <i>J Braz Chem Soc</i> , 8(3): 211-213. |
| Antiaflatoxin IC50=8.73 uM | |
| Antiaflatoxin IC50=3.28 ppm | |
| Antiaggregant 30 uM | |
| Antiallergic | |
| Antibacterial 20 ug/ml | |
| Anticancer | |
| Antifertility 250 mg/kg/day/60 days/orl rat | Kumar, P., Dixit*, V.P., and Khanna, P. Antifertility Studies of Kaempferol: Isolation and Identification from Tissue Culture of some Medicinally Important Plant Species. <i>Plantes medicinales et phytotherapie</i> , 23: 193-201, 1989. |
| Antingingivitic 20 ug/ml | |
| Antiherpetic 23-92 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. |
| Antihistaminic | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antiimplantation | |
| Antiinflammatory 20 mg/kg | |
| Antiinflammatory 200 mg/kg ipr rat | |
| Antileukemic IC50=3.1 ug/ml | <i>Life Sciences</i> 55: 1061. |
| Antilymphocytic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Antimutagenic ID50=10-40 nM | Phenolic Compounds in Food and Their Effects on Health. <i>Antioxidants & Cancer Prevention</i> . Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Antioxidant IC50=40 uM | |
| Antioxidant 3/4 quercetin | |
| Antioxidant IC50=1.2 ug/ml | |
| Antiperiodontic 20 ug/ml | |
| Antiplaque 20 ug/ml | |
| Antiradicular 7 x quercetin | |
| Antiseptic 20 ug/ml | |
| Antiserotonin 200 mg/kg ipr rat | |
| Antispasmodic | Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antistaphylococccic | |
| Antitumor | |
| Antitumor-Promoter | Yasukawa, K., Takido, M., Takeuchi, M., Sato, Y., Nitta, K., and Nakagawa, S. 1989. Inhibitory Effects of Flavonol Glycosides on 12-O-Tetradecanoylphorbol-13-acetate-Induced Tumor Promotion. <i>Chem. Pharm. Bull.</i> 38(3): 774-776, 1990. |
| Antiulcer 50-200 mg/kg ipr rat | |
| Antiviral 23-92 ug/ml | |
| Apoptotic 60 uM | |
| Aromatase-Inhibitor IC12=1 uM/l | <i>Journal of Medicinal Food</i> 2: 235.1999. |
| COX-2-Inhibitor | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Carcinogenic | Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. <i>Zulu Medicinal Plants. An inventory</i> . University of Natal Press, Pietermaritzburg. 450 pp. |
| Choleretic | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Copper-Chelator | |
| Cyclooxygenase-Inhibitor IC50 (uM) =20 | |
| Cytotoxic | |
| Diaphoretic? | <i>Lawrence Review of Natural Products</i> , Dec-90. |
| Diuretic | |
| Estrogenic EC50=0.1-25 uM/l | <i>Journal of Medicinal Food</i> 2: 227.1999. |
| Estrogenic EC50=0.56 uM | |
| Fungicide 20 ug/ml | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| HIV-RT-Inhibitor IC50=50-150 ug/ml | Garcia, J., Morin,* C., Nyasse, B., Sondengam, B-L., Tchouankeu, J-C., and Tsamo, E. Complete Structural Assignments Of An Ergosterol Derivative From <i>Entandrophragma utile</i> . <i>Journal of Natural Products</i> , 54(1): 136-142, 1991. |
| Hepatoprotective IC50=5.46 uM | |
| Hepatoprotective IC50=1.30 ppm | |
| Hypotensive | |
| ICAM-1-Inhibitor | |
| Inotropic | |

| | |
|---|---|
| Iodothyronine-Deiodinase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| JNK-Inhibitor | |
| Lipoxygenase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| MAO-Inhibitor | |
| Mutagenic | |
| NO-Inhibitor IC50=13.9 uM | |
| Natriuretic | |
| Neuroprotective | |
| PAF-Inhibitor | |
| Pesticide | |
| Protisticide | Meckes, M., Calzada, F., Tapia-Contreras, A., Cedillo-Rivera, R. 1999. Antiprotozoal Properties of Helianthemum glomeratum. Phytotherapy Research, 13(2): 102-105. |
| Quinone-Reductase-Inducer 3 uM | |
| TNF-alpha-Inhibitor IC50=3.99 uM | |
| Teratologic | |
| 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. |
| Topoisomerase-II-Inhibitor IC50=8.1 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. J Natural Products, 58: 217-225. |
| Tyrosinase-Inhibitor ID50=230 uM | |
| Uterotrophic EC50=0.1-25 uM/l | Journal of Medicinal Food 2: 227.1999. |
| Vasodilator | |
| cAMP-Phosphodiesterase-Inhibitor | |
| iNOS-Inhibitor IC50=<15 uM | |
| iNOS-Inhibitor IC50=13.9 uM | |

| | | | | |
|----------------------------|--------|----|----|--|
| KAEMPFEROL-3,7-DIGLUCOSIDE | Flower | -- | -- | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| LACTIFLORIC-ACID | Plant | -- | -- | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| LACTIFLORIN | Root | -- | -- | * |
| LACTIFLORIN | Plant | -- | -- | * |
| LINOLEIC-ACID | Root | -- | -- | Economic & Medicinal Plant Research, 1: 53. |

Activities (27)

5-Alpha-Reductase-Inhibitor

| | |
|-------------------------------|---|
| AntiMS | Economic & Medicinal Plant Research, 6: 189. |
| Antiacne | |
| Antiallopecic | |
| Antianaphylactic | Economic & Medicinal Plant Research, 6: 189. |
| Antiandrogenic | |
| Antiarteriosclerotic | |
| Antiartritic | Economic & Medicinal Plant Research, 6: 189. |
| Anticoronary | Jeffery B., Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antieczemic | Economic & Medicinal Plant Research, 6: 189. |
| Antifibrinolytic | Economic & Medicinal Plant Research, 1: 53. |
| Antigranular | |
| Antihistaminic | Economic & Medicinal Plant Research, 6: 189. |
| Antiinflammatory IC50=31 uM | |
| Antileukotriene-D4 IC50=31 uM | |
| Antimenorrhagic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiprostaitic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Carcinogenic | Science News, 146: 421. |
| Comedolytic | |
| Hepatoprotective | |
| Hypocholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| Immunomodulator | Economic & Medicinal Plant Research, 6: 189. |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Metastatic | Science News, 146: 421. |
| Nematicide | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Propecic | |

MAGNESIUM Root 580.0 990.0 -0.84 *

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 | |
| Antiartritic | 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 | |
| Antidysmenorrhic 100 mg 4 x/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antidendometriotic 500 mg/day | |
| Antienterotic | |
| Antiepileptic 450 mg/day | |
| Antifatigue | |
| Antifibromyalgic 200-300 mg 3x/day | |
| Antigastric | |

| | |
|---|--|
| 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 | |
| Antiplateau 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 14.0 20.0 -0.31 *

Activities (14)

| | |
|---------------------------------|--|
| AntiPMS | |
| Antialcoholic | Forest H. Nielsen, USDA, Grand Forks, various publications. |
| Antianemic | Martindale's 28th |
| Antiarthritic | |
| Antidiabetic 3-5 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antidiabetic 10-30 mg/man/day | |
| Antidiscotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidyskinetic | Martindale's 28th |
| Antiepileptic 450 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiosteoporotic | |
| Antiototic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antioxidant | |
| Antisyndrome-X 10-30 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 |
| Hypoglycemic 10-30 mg/man/day | |

MESO-INOSITOL Bud -- -- *

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

Activities (16)

| | |
|---|---|
| Antiallergic | Dorsch, W., Wagner, H. New Antiasthmatic Drugs from Traditional Medicine? Int Arch Allergy Appl Immunol 94: 262-265, 1991. |
| Antiasthmatic | Watt, J.M., and Breyer-Brandwijk, M.G. The Medicinal and Poisonous Plants of Southern and Eastern Africa. 1962. |
| Antibacterial MIC=12.5-400 ug/ml | |
| Antibronchitic | Dorsch, W., Wagner, H. New Antiasthmatic Drugs from Traditional Medicine? Int Arch Allergy Appl Immunol 94: 262-265, 1991. |
| Antiherpetic | Economic & Medicinal Plant Research, 5: 207. |
| Antileukemic | |
| Antioxidant | |
| Antiseptic | |
| Antistaphylococcic MIC=200-400 ug/ml | |
| Antitumor | |
| Antiviral | Economic & Medicinal Plant Research, 5: 207. |
| Gram(+)-icide MIC=200-400 ug/ml | |
| Gram(-)-icide MIC=12.5-50 ug/ml | |
| Pesticide | |
| Reverse- Transcriptase- Inhibitor | |
| Xanthine-Oxidase- Inhibitor IC50=29 uM | Hatano, T., Yasuhara, T., Yoshihara, R., Agata, I., Noro, T., and Okuda, T. 1989. Effects of Interaction of Tannins with Co-existing Substances.VII. Inhibitory Effects of Tannins Related Polyphenols on Xanthine Oxidase. Chem. Pharm. Bull. 38(5): 1224-1229 |

MYO-INOSITOL

Root

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Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

NONAGALLOYL-GLUCOSE

Root

--

--

Economic & Medicinal Plant Research, 1: 53.

OCTAGALLOYL-GLUCOSE

Root

--

--

Economic & Medicinal Plant Research, 1: 53.

OXYPAEONIFLORIN

Root

--

--

Chemical Constituents of Oriental Herbs (3 diff. books)

PAENOL

Root

--

--

*

PAEONIDIN

Flower

--

--

Chemical Constituents of Oriental Herbs (3 diff. books)

PAEONIFLORIGENONE

Root

--

400.0

Chemical Constituents of Oriental Herbs (3 diff. books)

Activities (1)

Neuromuscular-Blocker

Chemical Constituents of Oriental Herbs (3 diff. books)

PAEONIFLORIN

Root

1900.0

5000.0

*

Activities (20)

| | |
|------------------|--|
| Analgesic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antiaggregant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiallergic | Economic & Medicinal Plant Research, 1: 53. |
| Antibacterial | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Anticoagulant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Anticonvulsant | |
| Antidiuretic | |
| 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 | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antioxytotic | Economic & Medicinal Plant Research, 1: 53. |
| Antispasmodic | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| Antiulcer | |
| CNS-Depressant | 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. |
| Hypotensive | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| Hypothermic | |
| Immunostimulant | 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. |
| Musculotropic | Economic & Medicinal Plant Research, 1: 53. |
| Myorelaxant | 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. |
| Uterosedative | |
| Vasodilator | 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. |

| | | | | |
|-------------------|-------|----|----|--|
| PAEONIFLORQUINONE | Plant | -- | -- | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991. |
| PAEONIN | Root | -- | -- | Chemical Constituents of Oriental Herbs (3 diff. books) |
| PAEONOL | Root | -- | -- | Chemical Constituents of Oriental Herbs (3 diff. books) |

Activities (20)

Adaptogenic

Analgesic Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

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

Antiatherosclerotic Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Antibacterial

Antiedemic

Antigastric

Antiinflammatory

Antimutagenic

Antipyretic Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Antistaphylococcic

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

Antivascularitic

Diuretic Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Fungicide Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

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

Hypothermic

Immunomodulator

Pesticide

Sedative Oriental Materia Medica (three volumes by Dr. Hsu and collaborators)

| | | | | |
|------------|------|----|----|---|
| PAEONOLIDE | Root | -- | -- | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
|------------|------|----|----|---|

Activities (1)

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

| | | | | |
|------------|------|----|----|---|
| PAEONOSIDE | Root | -- | -- | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
|------------|------|----|----|---|

Activities (1)

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

PALMITIC-ACID Root -- -- Economic & Medicinal Plant Research, 1: 53.

Activities (13)

5-Alpha-Reductase-Inhibitor

Antiallopecic

Antiandrogenic

Antifibrinolytic

Economic & Medicinal Plant Research, 1: 53.

Antioxidant IC40=60

FLavor FEMA 1

Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Hemolytic

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

Hypercholesterolemic

Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)

Lubricant

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

Nematicide

Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

Pesticide

Propecic

Soap

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

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

PENTAGALLOYL-GLUCOSE Root -- -- 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 (8)

Antifibrinolytic

Economic & Medicinal Plant Research, 1: 53.

Antiherpetic

Antiinflammatory

Antimutagenic

Economic & Medicinal Plant Research, 6: 235.

Antiviral

Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.

Cyclooxygenase-Inhibitor

Dehydrogenase-Inhibitor

Pesticide

POTASSIUM Root 5000.0 7860.0 -0.58 *

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

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

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. <i>Sankyo Kenkyusho Nempo</i> , 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. <i>Chem Pharm Bull</i> 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 | |
| Antielastase 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 | <i>Rastitel'nye Resursy</i> , 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 | <i>Fitoterapia</i> No.5-1990. |
| Antileishmanic IC50=64 uM | |
| 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 | |

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|------------------------------------|---|
| Antimalarial IC50=1-6.4 ug/ml | Medicinal and Poisonous Plants of the Tropics. 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). |
| Antiplaque | 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 | |
| Antiprostanoïd | |
| 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 Progression 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. |

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| 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 Pharmacy: The aggregate of all these three-letter citations. |
| P450-Inhibitor 50-100 uM | Father Nature's Pharmacy: 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 | Ibewuike, 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 | |

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| Vasodilator | | | | | |
| Xanthine-Oxidase-Inhibitor IC50=>0.4 ug/ml | | | | Chem. & Pharm. Bull. 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 | | | | | |

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

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| Activities (6) | | | | | |
| Aldose-Reductase-Inhibitor IC20=1 uM | | | | | |
| Aldose-Reductase-Inhibitor IC44=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. | |
| Antihyperpetic | | | | Economic & Medicinal Plant Research, 5: 198. | |
| Antiviral | | | | Economic & Medicinal Plant Research, 5: 198. | |
| Insectiphile | | | | 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 | | | | | |

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|--------|------|-------|-------|-------|---|
| SODIUM | Root | 196.0 | 286.0 | -0.38 | * |
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| Activities (1) | | | | | |
| Hypertensive | | | | | Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine.</i> Avon Books, New York. 509pp. |

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|---------|-----|----|----|--|--|
| SUCROSE | Bud | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
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|------------------------|--|--|--|--|--|
| 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. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. |
| Demulcent | | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> 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 |

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|--------|------|----|----|--|---|
| TANNIN | Root | -- | -- | | Chemical Constituents of Oriental Herbs (3 diff. books) |
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Activities (35)

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|---|---|
| Anthelmintic | |
| AntiHIV | |
| Antibacterial | |
| Anticancer | |
| Anticariogenic | |
| Antidiarrheic | |
| Antidysenteric | |
| Antihepatotoxic | |
| Antihypertensive | |
| Antilipolytic | |
| Antimutagenic | |
| Antinephritic | 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. |
| Antiphidic | Economic & Medicinal Plant Research, 5: 363. |
| Antioxidant IC50=1.44 ug/ml | |
| Antioxidant 1/3 quercetin | |
| Antiradicular 500 mg/kg/day orl mus | 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. |
| Antiradicular 1/3 quercetin | |
| Antirenitic | 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. |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | |
| Antiviral | |
| Cancer-Preventive | HerbalGram No. 22 - Spring 1990, page 14. |
| Carcinogenic | |
| Chelator | |
| Cyclooxygenase- Inhibitor | |
| Glucosyl- Transferase-Inhibitor | |
| Hepatoprotective | |
| Immunosuppressant | |
| Lipoxygenase- Inhibitor | |
| MAO-Inhibitor | |
| Ornithine- Decarboxylase- Inhibitor | |
| Pesticide | |
| Psychotropic | 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. |
| Xanthine-Oxidase- Inhibitor | |

ZINC Root 15.0 24.0 -0.01 *

Activities (77)

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|---|--|
| 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. |

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| Anticolic | 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 | |
| Antimaucilitic | |
| Antimetastatic | |
| Antineuropathic | |
| Antinyctalopic | |
| Antioesity 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 | |
| Antiplateque | 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 |

