

List of All Chemicals

P Anogeissus latifolia (Combretaceae)

Common name(s)

Gum Ghatti

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 |
|---|--|-----|---------|----------|--------|------------|
| (+)-LEUCOCYANIDIN | Plant | | -- | -- | | * |
| 2-O-(BETA-D-GLUCURONOSYL-URONIC-ACID)-D-MANNOSE | Plant | | -- | -- | | * |
| 2-O-BETA-D-GLUCURONOSYL-D-MANNOSE | Plant | | -- | -- | | * |
| 2-O-BETA-D-GLUCURONOSYL-GLYCEROL | Plant | | -- | -- | | * |
| 2-O-BETA-D-GLUCUROPYRANOSYL-GLYCEROL | Plant | | -- | -- | | * |
| 3,3',4-TRI-O-METHYL-ELLAGIC-ACID | Plant | | -- | -- | | * |
| Activities (3) | | | | | | |
| Aldose-Reductase-Inhibitor IC50=0.08 uM | Terashima, S., Shimizu, M., Nakayama, H., Ishikura, M., et al. 1990. Studies on Aldose Reductase Inhibitors from Medicinal Plant of 'Sinfito,' <i>Potentilla candidans</i> , and Further Synthesis of Their Related Compounds. <i>Chem. Pharm. Bull</i> 38(10):2733-2736, 1990 | | | | | |
| Antihemorrhagic | 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. | | | | | |
| Cytotoxic ED50(KB)=7.7 ug/ml | | | | | | |
| 3,3',4-TRI-O-METHYLFLAVELLAGIC-ACID | Plant | | -- | -- | | * |
| 3,3',4-TRI-O-METHYLFLAVELLAGIC-ACID-4'-BETA-D-GLUCOSIDE | Plant | | -- | -- | | * |
| 3,3'-DI-O-METHYL-ELLAGIC-ACID | Plant | | -- | -- | | * |
| 3,3'-DI-O-METHYL-ELLAGIC-ACID-4'-BETA-D-GLUCOSIDE | Plant | | -- | -- | | * |
| 3,3'-DI-O-METHYL-ELLAGIC-ACID-4'-BETA-D-XYLOSIDE | Plant | | -- | -- | | * |
| 3,3'-DIMETHYLEETHER | Plant | | -- | -- | | * |
| 3,4,3,TRIMETHYL-ETHER | Plant | | -- | -- | | * |
| 5-DEHYDROSHIKIMIC-ACID | Plant | | -- | -- | | * |
| ALDOBIOURONIC-ACID | Plant | | -- | -- | | * |
| ALDOBIOURONIC-ACID-6-O-BETA-D-GLUCURONYSL-D-GALACTOSE | Plant | | -- | -- | | * |
| ALDOTRIOURONIC-ACID | Plant | | -- | -- | | * |
| ARABINOSE | Plant | | -- | -- | | * |
| ASH | Leaf | | -- | 95000.0 | -0.42 | * |
| CALCIUM | Leaf | | -- | 30300.0 | 0.81 | * |

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 | |

CARBOHYDRATES

Leaf -- 694000.0 0.65 *

CHEBULAGIC-ACID

Plant -- -- *

Activities (8)

| | |
|---|---|
| Adrenocorticotrophic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiherpetic | Economic & Medicinal Plant Research, 5: 194. |
| Antiperoxidant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiviral | Economic & Medicinal Plant Research, 5: 194. |
| Lypolytic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Topoisomerase-I-Inhibitor IC ₅₀ =50 nM | |
| Topoisomerase-II-Inhibitor IC ₁₀₀ =0.5 uM | Kashiwada, Y., Nonaka, G. I., Nishioka, I., Lee, J. H., Bori, I., Fukushima, Y., Bastow, K. F., Lee, K. H. 1993. Tannins as Potent Inhibitors of DNA Topoisomerase II in vitro. J Pharm Sci, 82: 487-492. |

CORILAGEN

Plant -- -- *

D-GLUCURONIC-ACID

Plant -- -- *

DIHYDROSHIKIMIC-ACID

Plant -- -- *

ELLAGIC-ACID

Plant -- -- *

Activities (51)

| | |
|---|--|
| ACE-Inhibitor IC50=5 mM/l | |
| Abortifacient 1.2 mg/kg ivn mus | |
| Aldose-Reductase-Inhibitor IC50=0.2 uM | |
| Aldose-Reductase-Inhibitor IC50=0.2 ug/ml (strong activity) | |
| AntiGTF ID50=20 ug/ml | |
| AntiHIV IC90=200 ug/ml | Tan, G.T., Pezzuto, J.M., Kinghorn,* A.D., Hughes, S.H. Evaluation Of Natural Products As Inhibitors Of Human Immunodeficiency Virus Type 1 (HIV-1) Reverse Transcriptase. <i>Journal of Natural Products</i> , 54(1): 143-154, 1991. |
| Antiaflatoxin | |
| Antianaphylactic | |
| Antibacterial 1,250 ug/ml | |
| Antibacterial ID50=20 ug/ml | |
| Anticancer (Cervix) | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Anticancer (Colon) | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Anticancer (Esophagus) | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Anticancer (Mouth) | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Anticariogenic ID50=20 ug/ml | |
| Anticataract | Shimizu, M., Horie, S., Terashima, S., Ueno, H., et al. 1989. Studies on Aldose Reductase Inhibitors from Natural Products.II. Active Components of a Paraguayan Crude Drug 'Para-parai mi,' <i>Phyllanthus niruri</i> . <i>Chem. Pharm. Bull.</i> 37(9): 2531-2532, 1989. |
| Antigingivitic 1,250 ug/ml | |
| Antihyperthyroid | |
| Antiinflammatory | |
| Antimalarial IC50=0.5 uM | Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. <i>Africa Herbal Antimalaria Meeting</i> . PlantaPhile Publications, Berlin. 72 pp. |
| Antimutagenic | |
| Antioxidant >50 x tocopherol | Osawa, T. Phenolic Antioxidants in Dietary Plants as Antimutagens. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.11 p.142. |
| Antioxidant IC98=30 ppm | |
| Antioxidant 2/3 quercetin | |
| Antiperiodontic 1,250 ug/ml | |
| Antiperoxidant IC50=29 uM | <i>Planta Medica</i> , 57: A54, 1991. |
| Anti plaque 1,250 ug/ml | |
| Antiplasmodial IC50=0.5 uM | Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. <i>Africa Herbal Antimalaria Meeting</i> . PlantaPhile Publications, Berlin. 72 pp. |
| Antiseptic 1,250 ug/ml | |
| Antistreptococccic ID50=20 ug/ml | |
| Antithyroid | Jim Duke's personal files. |
| Antitumor | |
| Antiviral | <i>Economic & Medicinal Plant Research</i> , 5: 224. |
| Antiyeast IC50=10.5 uM | |
| Apoptotic | Joseph, J., Nadeau, D. and Underwood, A. 2001. <i>The Color Code</i> . Hyperion, NY. |
| Astringent | Martindale's 29th |
| Cancer-Preventive 3 ppm | |
| Candida-SAP-Inhibitor IC50=8.4 uM | |
| Cytotoxic 4.6 ug/ml | <i>Advance in Chinese Medicinal Materials Research</i> . 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 359. |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Detoxicant | |
| Glucosyl-Transferase-Inhibitor ID50=20 ug/ml | |
| HIV-RT-Inhibitor | <i>Economic & Medicinal Plant Research</i> , 5: 224. |
| Hemostatic | Merck 11th Edition |
| Hepatoprotective IC55=30 ug/ml | Mayumi Ito (nee Someya), et al. 1990. Hepatoprotective Compounds from <i>Canarium album</i> and <i>Euphorbia nematocypa</i> . <i>Chem. Pharm. Bull.</i> 38(8): 2201-2203, 1990. |
| Juvabional | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Pesticide | |
| Quinone-Reductase-Inducer 0.4 g/kg rat | Ahn, D., Putt, D., Kresty, L., Stoner, G. D., Fromm, D., Hollenberg, P. F. 1996. The Effects of Dietary Ellagic Acid on Rat Hepatic and Esophageal Mucosal Cytochromes P450 and Phase II Enzymes. <i>Carcinogenesis</i> , 17(4): 821-828. |
| Sunscreen 0.50% | Jim Duke's personal files. |
| Topoisomerase-I-Antagonist | <i>Journal of Medicinal Food</i> 2: 167.1999. |
| Xanthine-Oxidase-Inhibitor IC50=3.1 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. <i>Chem. Pharm. Bull.</i> 38(5): 1224-1229 |

ELLAGITANNIN

Plant

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| Activities (8) | | | | | |
|---------------------------------|--|--|--|--|--|
| AntiHIV | | | | | |
| 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. | | | | |
| Antioxidant | | | | | |
| Antitumor | | | | | |
| Cardiotoxic | | | | | |
| 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. | | | | |
| 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. | | | | |
| Reverse-Transcriptase-Inhibitor | | | | | |

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|-------|------|----|----------|-------|---|
| FAT | Leaf | -- | 36000.0 | -0.41 | * |
| FIBER | Leaf | -- | 242000.0 | 1.0 | * |

| Activities (15) | | | | | |
|------------------------------|--|--|--|--|--|
| Angiotensin-Receptor-Blocker | | | | | |
| Antidiabetic | | | | | |
| Antihypertensive | | | | | |
| Antiobesity | | | | | |
| Antitumor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Antiulcer | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Beta-Blocker | | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |
| Cardioprotective | | | | | |
| Diuretic | | | | | |
| Hypocholesterolemic | | | | | |
| Hypotensive 10 g/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |
| Hypouricemic | | | | | |
| Laxative | | | | | |
| Vasodilator | | | | | |

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|----------|-------|----|----|--|---|
| FRUCTOSE | Plant | -- | -- | | * |
|----------|-------|----|----|--|---|

| Activities (8) | | | | | |
|-----------------------|--|--|--|--|--|
| Antialcoholic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Antidiabetic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Antihangover | | | | | |
| Antiketotic | Merck 11th Edition | | | | |
| Antinauseant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Laxative | | | | | |
| Neoplastic | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses | | | | |
| Sweetener 2 x glucose | 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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|-----------|-----|----|----|--|---|
| GALACTOSE | Gum | -- | -- | | * |
|-----------|-----|----|----|--|---|

| Activities (1) | | | | | |
|--------------------------|--|--|-------------------|--|--|
| Sweetener 0.32 x sucrose | | | Martindale's 28th | | |

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|-------------|-------|----|----|--|---|
| GALLIC-ACID | Plant | -- | -- | | * |
|-------------|-------|----|----|--|---|

| Activities (62) | | | | | |
|----------------------------------|--|--|--|--|--|
| ACE-Inhibitor IC50=7.7 mM/l | | | | | |
| Analgesic | | | | | |
| AntiHIV | | | | | |
| AntiMRSA | | | | | |
| Antiadenovirus | Economic & Medicinal Plant Research, 5: 194. | | | | |
| Antiallergic | 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(+)-jicide MIC=1,000 ug/ml | |
| Gram(-)-jicide 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. |
| 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 |

Activities (2)

Cardiotoxic
Reverse-Transcriptase-Inhibitor

GLUCOSE Plant -- -- *

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.

LEUCOANTHOCYANIDIN Plant -- -- *

METHYL-PENTOSE Plant -- -- *

MYRICETIN Plant -- -- *

Activities (34)

Allelochemic IC82=1 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.
AntiHIV
Antiallergenic
Antibacterial MIC=20-500 ug/ml
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, *Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology*, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Antigastric
Antigingivitic MIC=20 ug/ml
Antigonadotrophic Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.
Antihistaminic
Antiinflammatory Oriental Materia Medica (three volumes by Dr. Hsu and collaborators)
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.
Antioxidant IC99=200 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 1.4 uM
Antioxidant IC50=3.9 ug/ml
Antiperiodontic MIC=20 ug/ml
Antiplateque MIC=20 ug/ml
Antiseptic MIC=20 ug/ml
Antiviral
Apoptotic 60 uM
COMP-Inhibitor Dullo, A. G., et al. 1999. Efficacy of a green tea extract rich in catechin polyphenols and caffeine in increasing 24-h energy expenditure and fat oxidation in humans. *Am. J. Clinical Nutrition*, 70: 1040-1045.
Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide MIC=150 ug/ml *Planta Medica*, 57: A43, 1991.
Diuretic Oriental Materia Medica (three volumes by Dr. Hsu and collaborators)
Hypoglycemic *Economic & Medicinal Plant Research*, 6: 170.
Larvostat IC50=2.6-3.5 mM/kg 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 Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.
Mutagenic Nigg, H.N. and Seigler, D.S., eds. 1992. *Phytochemical Resources for Medicine and Agriculture.* Plenum Press, New York. 445 pp.
Oxidase-Inhibitor Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.
Pesticide
Quinone-Reductase-Inducer 36 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. *Cancer Lett.*, 120 (2): 213-216.
Topoisomerase-I-Inhibitor IC50=11.9 ug/ml
Topoisomerase-II-Inhibitor IC50=11.9 ug/ml
Tyrosine-Kinase-Inhibitor *Economic & Medicinal Plant Research*, 6: 170.
Vasodilator

| | | | | | |
|--|---|----|---------|-------|---|
| O-(BETA-D-GLUCURONOSYL-URONIC-ACID)-(1,2)-O-D-MANNOPYRANOSYL-(1,2)-D-MANNOSE | Plant | -- | -- | | * |
| PENTOSE | Gum | -- | -- | | * |
| PEROXIDASE | Plant | -- | -- | | * |
| PHOSPHORUS | Leaf | -- | 3400.0 | -0.29 | * |
| Activities (4) | | | | | |
| Antiosteoporotic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Anxiolytic | | | | | |
| Immunostimulant | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Osteogenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| POLYPHENOL-OXIDASE | Plant | -- | -- | | * |
| PROCYANIDIN | Plant | -- | -- | | * |
| Activities (11) | | | | | |
| AntiHIV | | | | | |
| Antiallergic | | | | | |
| Antibacterial | | | | | |
| Antibiotic | | | | | |
| Antiedemic | | | | | |
| Antiexudative | | | | | |
| Antiviral | | | | | |
| Capillariprotective | | | | | |
| Hyaluronidase-Inhibitor | | | | | |
| Pesticide | | | | | |
| Xanthine-Oxidase-Inhibitor IC50=>40 | 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 | | | | |
| PROTEIN | Leaf | -- | 75000.0 | -1.37 | * |
| PYROGALLOL | Plant | -- | -- | | * |
| Activities (23) | | | | | |
| Abortifacient | | | | | |
| Allelochemic IC50=6.53 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. | | | | |
| Antibacterial | | | | | |
| Anticlastogen | | | | | |
| Antidermatitic | Martindale's 29th | | | | |
| Antilupus | | | | | |
| Antimutagenic | | | | | |
| Antioxidant | Jim Duke's personal files. | | | | |
| Antipsoriac | Merck 11th Edition | | | | |
| Antiseptic | Martindale's 29th | | | | |
| CNS-Active | | | | | |
| Candidicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Cardiovascular 25 mg/kg ivn dog | Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006. | | | | |
| Dye | Merck 11th Edition | | | | |
| Ecbolic | | | | | |
| Fungicide | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Insulin-Sparing | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Irritant | Merck 11th Edition | | | | |
| Nephrotoxic | Martindale's 29th | | | | |
| Nigrifacient | Martindale's 29th | | | | |
| Pesticide | | | | | |
| Prostaglandin-Synthesis-Inhibitor IC50=900 uM | Alanko, J., et al. 1999. Modulation of Arachidonic Acid Metabolism by Phenols: Relation to their Structure and Antioxidant/Prooxidant Properties. Free Radical Biol Med, 26(1/2): 193-201. | | | | |
| Toxic | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| QUERCETIN | Plant | -- | -- | | * |
| Activities (176) | | | | | |
| 11B-HSD-Inhibitor | | | | | |

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|---|---|
| 5-Lipoxygenase-Inhibitor IC50 (uM)=4 | |
| ATPase-Inhibitor | Nigg, H.N. and Seigler, D.S., eds. 1992. <i>Phytochemical Resources for Medicine and Agriculture</i> . 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 | |
| Anti-elastase 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 | <i>Fitoterapia</i> No.5-1990. |
| Antileishmanic IC50=64 | |

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|------------------------------------|---|
| Antileukemic IC50=10 uM | Economic & Medicinal Plant Research, 5: 225. |
| Antileukemic IC50=>10 ug/ml | Life Sciences 55: 1061. |
| Antileukemic 5.5-60 uM | |
| Antileukotriene | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antilipoperoxidant IC67=50 | |
| 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., Durjez, 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. The Color Code. Hyperion, NY. |
| Antiperiodontal | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiperistaltic | |
| Antipermeability | |
| Antiperoxidant | Planta Medica, 57: A110, 1991. |
| Antipharyngitic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplateau | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiplasmodial IC50=13-64 | |
| Antipodriac | |
| Antipolio | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiproliferant 10 nM | |
| Antiprostanoid | |
| Antiprostatic | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Antipsoriac | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiradicular IC50=4.6 uM | Planta Medica, 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. A Textbook of Natural Medicine. 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. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| COMT-Inhibitor | |
| COX-2-Inhibitor <40 uM | |
| Calmodulin-Antagonist | 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. |
| Candidicide | |
| Capillariprotective | Merck 11th Edition |
| Carcinogenic 40,000 ppm (diät) mus | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Catabolic | |

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|---|--|
| 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. |
| 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., Tillequin, 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 | Ibewuik, J. C., Ogungbamila, 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. Phenolic Compounds in Food and Their Effects on Health, 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 | Economic & Medicinal Plant Research, 6: 170. | | | | |
| VEGF-Inhibitor | | | | | |
| 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 | | Plant | -- | -- | * |
| QUINIC-ACID | | | | | |

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|-----------------------|------------------------|--|--|--|--|
| Activities (1) | | | | | |
| Choleretic | Fitoterapia No.5-1986. | | | | |

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|---------------|--|-------|----|----|---|
| RHAMNOSE | | Plant | -- | -- | * |
| SHIKIMIC-ACID | | Plant | -- | -- | * |

| | | | | | |
|-----------------------------|---|--|--|--|--|
| Activities (14) | | | | | |
| Analgesic | | | | | |
| Anticancer | | | | | |
| Anticonvulsant | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. | | | | |
| Antioxidant 7 x quercetin | | | | | |
| Antiradicular 7 x quercetin | | | | | |
| Antispasmodic | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp. | | | | |
| Antitumor | | | | | |
| Antitumor-Promoter | | | | | |
| Bruchifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. | | | | |
| Cancer-Preventive | | | | | |
| Carcinogenic | Merck 11th Edition | | | | |
| Ileorelaxant | | | | | |
| Mutagenic | | | | | |
| Pesticide | | | | | |

| | | | | | |
|------------|--|-------|----------|----------|------|
| SITOSTEROL | | Plant | -- | -- | * |
| TANNASE | | Plant | -- | -- | * |
| TANNIN | | Leaf | 322000.0 | 329000.0 | 2.67 |

Activities (35)

| | |
|---|---|
| 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- Transférase-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 | |

| | | | | | |
|--------|------|----------|----------|------|---|
| TANNIN | Bark | 100000.0 | 150000.0 | 0.08 | * |
|--------|------|----------|----------|------|---|

Activities (35)

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/mlAntioxidant 1/3
quercetinAntiradicular 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-
InhibitorGlucosyl-
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

| | | | | | |
|-----------------|-------|----------|----------|-------|---|
| TRIGALLIC-ACID | Plant | -- | -- | | * |
| TRIMETHYL-ETHER | Plant | -- | -- | | * |
| TUGALLIC-ACID | Plant | -- | -- | | * |
| URONIC-ACID | Plant | -- | -- | | * |
| WATER | Leaf | 123000.0 | 128000.0 | -3.39 | * |
| XYLOSE | Plant | -- | -- | | * |

Activities (3)

Antidiabetic

Diagnostic

Martindale's 28th

Dye

Merck 11th Edition