

List of All Chemicals

P Alisma plantago-aquatica (Alismataceae)

Common name(s)

Water Plantain; Tse-Hsieh; Mud Plantain; Ze-Xie

How used

Medicinal

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

| Chemical | Part <input type="button" value="All"/> | Low PPM | High PPM | StdDev | *Reference |
|--|--|---------|----------|--------|------------|
| 16-BETA-HYDROXYALISOL-B-MONOACETATE | Rhizome | -- | -- | | * |
| 16-BETA-METHOXYALISOL-B-MONOACETATE | Rhizome | -- | -- | | * |
| ACETYLLALISOLS | Plant | -- | -- | | * |
| ACETYLVALINE | Rhizome | -- | -- | | * |
| ADENOSINE-5'-PHOSPHOSULFATE-SULFOTRANSFERASE | Plant | -- | -- | | * |
| ALISMOL | Plant | -- | -- | | * |
| Activities (2) | | | | | |
| Antimycontractant | | | | | |
| Cardiac | Yamahara, J., Matsuda, H., Murakami, H., and Fujimura, H., The active principle of Alismatis rhizoma which inhibits contractile responses in aorta, Chem & Pharm. Bull, 34(10),1986, 4422-4. | | | | |
| ALISMOXIDE | Plant | -- | -- | | * |
| ALISOL-A | Rhizome | -- | -- | | * |
| Activities (2) | | | | | |
| Antihypercholesterolemic | | | | | |
| Natriuretic | | | | | |
| ALISOL-A-MONOACETATE | Plant | -- | -- | | * |
| Activities (5) | | | | | |
| Antihypercholesterolemic | | | | | |
| Diuretic | | | | | |
| Hepatoprotective | | | | | |
| Hypokalemic | | | | | |
| Natriuretic | | | | | |
| ALISOL-B | Rhizome | -- | -- | | * |
| Activities (3) | | | | | |
| Antihypercholesterolemic | | | | | |
| Diuretic | | | | | |
| Natriuretic | | | | | |
| ALISOL-B-MONOACETATE | Plant | -- | -- | | * |
| Activities (2) | | | | | |
| Antihypercholesterolemic | | | | | |
| Hepatoprotective | | | | | |
| ALISOL-C | Rhizome | -- | -- | | * |
| ALISOL-C-MONOACETATE | Plant | -- | -- | | * |

| Activities (1) | | | | | | |
|------------------|---|---------|----|------|-------|---|
| Hepatoprotective | | | | | | |
| ARABINOSE | | Plant | -- | -- | | * |
| ARSENIC | | Rhizome | -- | 0.05 | -0.48 | * |
| Activities (2) | | | | | | |
| Anorexic | Forest H. Nielsen, USDA, Grand Forks, various publications. | | | | | |
| Pesticide | | | | | | |
| ASPARAGINE | | Plant | -- | -- | | * |
| Activities (2) | | | | | | |
| Antisickling | Ekeke, G.I. and Shode, F.O. 1988. Phenylalanine is the Predominant Antisickling Agent in <i>Cajanus cajan</i> Seed Extract. <i>Planta Medica</i> 56(1): 41, 1990. | | | | | |
| Diuretic | HerbalGram No. 17. | | | | | |
| BETA-SITOSTEROL | | Rhizome | -- | -- | | * |

Activities (47)

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

CALCIUM

Rhizome

1630.0

3430.0

-0.76

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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 | |

CHOLINE

Rhizome

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Activities (20)

| | |
|---|--|
| Antialzheimeran 5-16 g/man/day | |
| Antichoreic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anticirrhotic 6,000 mg/man/day | |
| Anticystinuric | |
| Antidementia | |
| Antidiabetic | |
| Antidyskinetic 150-200 mg/kg/man/day | Martindale's 28th |
| Antihomocysteine | |
| Antimanic 15-30 g/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antinociceptive | |
| Antisteatotic | |
| Cardiodepressant | |
| Cerebrotonic | |
| Cholinergic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Hepatoprotective | |
| Hypotensive | |
| Ileorelaxant | |
| Lipotropic | |
| Memorigenic | |
| Parasympathomimetic (1/1,000th acetylcholine) | Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp. |

CHRYSOERIOL

Plant

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| Activities (7) | | | | | |
|---------------------------------------|---|--|--|--|--|
| Aldose-Reductase-Inhibitor IC31=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. | | | | |
| Anticomplementary | | | | | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. | | | | |
| Antioxidant | | | | | |
| Antirhinoviral | Economic & Medicinal Plant Research, 5: 197. | | | | |
| Antiviral | Economic & Medicinal Plant Research, 5: 197. | | | | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. | | | | |

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|--------|---------|------|------|-----|---|
| COPPER | Rhizome | 11.0 | 15.0 | 1.0 | * |
|--------|---------|------|------|-----|---|

| 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. | | | | |

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|----------|-------|----|----|--|---|
| CYTIDINE | Plant | -- | -- | | * |
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| D-FRUCTOSE | Rhizome | -- | -- | | * |
|------------|---------|----|----|--|---|

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|-----------|---------|----|----|--|---|
| D-GLUCOSE | Rhizome | -- | -- | | * |
|-----------|---------|----|----|--|---|

| Activities (1) | | | | | |
|----------------|--|--|--|--|--|
| Antisecretory | | | | | |

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|-------------|---------|----|----|--|---|
| EPIALISOL-A | Rhizome | -- | -- | | * |
|-------------|---------|----|----|--|---|

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|-----|---------|----|---------|-------|---|
| FAT | Rhizome | -- | 42000.0 | -0.07 | * |
|-----|---------|----|---------|-------|---|

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|----------------|-------|----|----|--|---|
| FURFURALDEHYDE | Plant | -- | -- | | * |
|----------------|-------|----|----|--|---|

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|-----------|-------|----|----|--|---|
| GALACTOSE | Plant | -- | -- | | * |
|-----------|-------|----|----|--|---|

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

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|-----------|-------|----|----|--|---|
| GUANIDINE | Plant | -- | -- | | * |
|-----------|-------|----|----|--|---|

| Activities (6) | | | | | |
|--------------------------------|--|--|--|--|--|
| Antimyasthenic 10-35 mg/kg/day | | | | | |
| Convulsant | | | | | |
| Hepatotoxic | | | | | |
| Hypertensive | | | | | |
| Hypoglycemic | | | | | |
| Myostimulant | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. | | | | |

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|------|---------|------|-------|-------|---|
| IRON | Rhizome | 95.0 | 110.0 | -0.75 | * |
|------|---------|------|-------|-------|---|

| Activities (6) | | | | | |
|------------------------------------|--|--|--|--|--|
| Antiakathisic | Martindale's 29th | | | | |
| Antianemic | Martindale's 29th | | | | |
| Anticancer | | | | | |
| 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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|----------|---------|----|----|--|---|
| LECITHIN | Rhizome | -- | -- | | * |
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Activities (20)

| | |
|--------------------------------------|--|
| AntiTourette's 20-50 g/man/day/orl | Martindale's 28th |
| Antialzheimeran 40-100 g/man/day/orl | Martindale's 28th |
| Antiataxic | Martindale's 28th |
| Anticirrhotic | |
| Antidementia | Martindale's 29th |
| Antidyskinetic 40-80 g/man/day/orl | Martindale's 28th |
| Antieczemic | |
| Antilithic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antimanic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antimorphinistic | |
| Antioxidant Synergist | Martindale's 29th |
| Antipsoriac | |
| Antisclerodermic | |
| Antiseborrheic | |
| Antisprue | |
| Antitumor (Lung) | |
| Cholinergic | Martindale's 28th |
| Hepatoprotective | |
| Hypocholesterolemic 20-30 g/man/day | |
| Lipotropic | Merck 11th Edition |

LIGNIN

Plant

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Activities (13)

| | |
|---------------------|-------------------|
| AntiHIV | |
| Antibacterial | |
| Anticancer | |
| Anticoronary | |
| Antidiarrheic | Martindale's 29th |
| Antinitrosaminic | |
| Antioxidant | |
| Antitumor | |
| Antiviral | |
| Chelator | |
| Hypocholesterolemic | |
| Laxative | |
| Pesticide | |

LUTEOLIN

Plant

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Activities (78)

| | |
|---|--|
| Aldose-Reductase-Inhibitor EC=3 ppm | Shin*, K.H., Chung, M.S., Chae, Y.J., Yoon, K.Y., Cho, T.S. 1992. A survey for aldose reductase inhibition of herbal medicines. <i>Fitoterapia</i> 64(2): 130, 1993. |
| Aldose-Reductase-Inhibitor IC50=0.45 uM rat | |
| AntiHIV | |
| Antiallergic | |
| Antiangiogenic IC60-75=10 uM | |
| Antiatherogenic | |
| Antibacterial MIC=500 ug/ml | Planta Medica, 57: A43, 1991. |
| Anticarcinogenic | |
| Anticarcinomic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Anticataract EC=3 ppm | Shin*, K.H., Chung, M.S., Chae, Y.J., Yoon, K.Y., Cho, T.S. 1992. A survey for aldose reductase inhibition of herbal medicines. <i>Fitoterapia</i> 64(2): 130, 1993. |
| Anticomplementary | |
| Antidermatic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp. |
| 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. |
| Antiherpetic 11-23 ug/ml | |
| Antihistaminic <10-15 uM | |
| Antiinflammatory #NAME? | Wichtl, M. 1984. <i>Teedrogen</i> . Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp. |
| Antileukemic 20-50 uM | |

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| Antilymphomic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antimelanomic | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antimutagenic ID50=2-5 nM | |
| Antimutagenic ID50=0.44 ug/ml | |
| Antinociceptive | |
| Antioxidant IC50=10 uM | |
| Antipolio | Economic & Medicinal Plant Research, 5: 197. |
| Antiproliferant | |
| Antispasmodic | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Antitumor 1-50 uM | |
| Antitumor (Colon) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antitumor (Kidney) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antitumor (Lung) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antitumor (Ovary) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antitumor (Pancreas) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antitumor (Skin) 20 uM | |
| Antitumor (Stomach) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antitumor (Thyroid) 12-50 uM | |
| Antitumor (brain) | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46. |
| Antitussive | |
| Antiviral 11-23 ug/ml | |
| Aphidifuge | |
| Apoptotic 12-50 uM | |
| Aromatase-Inhibitor IC35=1 uM/l | Journal of Medicinal Food 2: 235.1999. |
| Beta-Glucuronidase-Inhibitor IC50=40 uM | |
| Calcium-Antagonist IC50=1.2 uM rbt | |
| Cancer-Preventive | |
| Chemopreventive | |
| Choleretic | |
| Cytotoxic 1-50 uM | |
| Deiodinase-Inhibitor | Jim Duke's personal files. |
| Differentiator IC>40=40 uM | |
| Diuretic | Jim Duke's personal files. |
| Estrogenic 58% genistein | |
| Hepatoprotective | |
| Hyaluronidase-Inhibitor IC50+=100-250 uM | |
| Hypocholesterolemic | |
| ICAM-1-Inhibitor | |
| IKK-Inhibitor | |
| 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. |
| Lipoxygenase-Inhibitor | |
| MAPK-Inhibitor | |
| MMP-9-Inhibitor 20 uM | |
| Metalloproteinase-Inhibitor | |
| Myorelaxant | |
| NEP-Inhibitor IC50=>42 uM | |
| NF-kB-Inhibitor | |
| NO-Inhibitor | |
| PTK-Inhibitor 10-100 uM | |
| Pesticide | |
| Proliferant | |
| Prostaglandin-Synthetase-Inhibitor | |
| Protein-Kinase-C-Inhibitor IC70=50 uM | |
| Succinoxidase-Inhibitor | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |

TNF-alpha-Inhibitor
IC50=14.44 uM

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.

VEGF-Inhibitor IC50=2-7 uM

Vasodilator

Xanthine-Oxidase-Inhibitor IC50=0.11 ug/ml Chem. & Pharm. Bull. 38: 1772.

iNOS-Inhibitor

MAGNESIUM Rhizome 1410.0 1740.0 0.1 *

Activities (65)

AntiCFS

AntiLyme 400-1,000 mg

AntiMS

AntiPMS 400-800 mg/day/wmn/orl

AntiPMS 400-800 mg/day/wmn orl

AntiRaynaud's 280-350 mg/day

Antiaggregant 400 mg/day

Antialcoholic

Antianginal 400 mg/day Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

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

Antianxiety 400 mg/day Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

Antiarrhythmic 400 mg/day

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

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

Antiatherosclerotic 400 mg/day

Anticephalagic

Anticlimacteric 500-750 mg/day

Anticonvulsant

Facciola, S. 1998. *Cornucopia - A Source Book of Edible Plants*. Kampong Publications, Vista CA. 713 pp.

Anticoronary 400 mg/day

Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. *Syndrome X - The complete nutritional program to prevent and reserve insulin resistance*. John Wiley & Sons, New York. 272 pp. \$24.95

Antidepressant

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

Antidiabetic 400-800 mg/man/day

Antidysmenorrheic 100 mg 4 x/day Werbach, M. 1993. *Healing with Food*. Harper Collins, New York, 443 pp.

Antiendometriotic 500 mg/day

Antienterotic

Antiepileptic 450 mg/day

Antifatigue

Antifibromyalgic 200-300 mg 3x/day

Antigastric

Antiglaucomic

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

Antihypertensive

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 | |

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|-----------|---------|-------|-------|------|---|
| MANGANESE | Rhizome | 360.0 | 479.0 | 2.36 | * |
|-----------|---------|-------|-------|------|---|

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

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|---------|---------|----|------|-------|---|
| MERCURY | Rhizome | -- | 0.01 | -0.96 | * |
|---------|---------|----|------|-------|---|

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|-----------------------|--|--|--|--|--|
| Activities (1) | | | | | |
| Nephrotoxic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). | | | | |

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|----------------|-------|----|----|--|---|
| NICOTINIC-ACID | Plant | -- | -- | | * |
|----------------|-------|----|----|--|---|

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|-----------------------------------|--|--|--|--|--|
| Activities (11) | | | | | |
| AntiCrohn's | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antichilblain 50 mg/3x/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antidote (pesticides) | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antischizophrenic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Antithyrototoxic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Choleretic | | | | | |
| Hypocholesterolemic 1-6 g/man/day | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |
| Hypoglycemic | | | | | |
| Insulinase-Inhibitor | Economic & Medicinal Plant Research, 6: 157. | | | | |
| Insulinotonic | Economic & Medicinal Plant Research, 6: 157. | | | | |
| Lipolytic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |

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|------------|-------|----|----|--|---|
| OLEIC-ACID | Plant | -- | -- | | * |
|------------|-------|----|----|--|---|

| Activities (18) | |
|----------------------------------|---|
| 5-Alpha-Reductase-Inhibitor | |
| Allergenic | |
| Alpha-Reductase-Inhibitor | |
| Anemiagenic | |
| Antialopecic | |
| Antiandrogenic | |
| Antiinflammatory IC50=21 uM | |
| Antileukotriene-D4 IC50=21 uM | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Choleretic 5 ml/man | |
| Dermatitigenic | |
| FLavor FEMA 1-30 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hypocholesterolemic | Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.) |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Merck 11th Edition |
| Percutaneostimulant | Seki, T., Toeda, C., Kawaguchi, T., Juni, K., Sugibayashi, K., and Morimoto, Y. 1990. Enhanced Transdermal Delivery of Zidovudine in Rats and Human Skin. Chem. Pharm. Bull. 38(11): 3086-3089, 1990. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Propecic | |

PALMITIC-ACID Plant -- -- *

| Activities (13) | |
|-----------------------------|--|
| 5-Alpha-Reductase-Inhibitor | |
| Antialopecic | |
| 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. |

PANTOTHENIC-ACID Plant -- -- *

| Activities (11) | |
|--------------------------------------|--|
| Antiallergic 100-500 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiarthritic 500-2,000 mg/day | |
| Anticephalagic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Anticlaudificant? | Martindale's 29th |
| Antidermatitic | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| Antifatigue | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antihypercholesterolemic 300 mg/meal | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiileus? | Martindale's 29th |
| Antiinsomniac? | Martindale's 29th |
| Antirheumatic? | Martindale's 29th |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |

PHENOL Plant -- -- *

| Activities (26) | |
|--------------------------------|--|
| Analgesic | Martindale's 29th |
| Anesthetic | |
| AntiMS | Martindale's 29th |
| Antibacterial | |
| Antihemorrhoidal | Martindale's 28th |
| Antihydrocoele | Martindale's 29th |
| Antiincontinence | Martindale's 29th |
| Antionychogryphotic | Martindale's 28th |
| Antiotitic | Martindale's 28th |
| Antioxidant | Jim Duke's personal files. |
| Antiprostaitic | Martindale's 29th |
| Antipyruvetic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiseptic | |
| Antisinusitic | Martindale's 28th |
| Antispastic | Martindale's 28th |
| Antiviral | Martindale's 29th |
| Antiwrinkle | Martindale's 28th |
| CNS-Depressant | Martindale's 29th |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Carcinogenic | |
| Emetic | Martindale's 29th |
| Fungicide | Martindale's 29th |
| Hemolytic 5,400 ppm | Martindale's 28th |
| Pesticide | |
| Rodenticide LD50=1,040 cut rat | |
| Vasodilator | |

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|-----------|---------|--------|---------|------|---|
| POTASSIUM | Rhizome | 9560.0 | 11200.0 | -0.2 | * |
|-----------|---------|--------|---------|------|---|

| 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 | |

| | | | | | |
|------------------|-------|----|----------|-------|---|
| PROANTHOCYANIDIN | Plant | -- | -- | | * |
| PROTEIN | Seed | -- | 132000.0 | -0.91 | * |
| PYRIDOXINE | Plant | -- | -- | | * |

Activities (43)

| | |
|---|--|
| Analgesic 50 mg day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| AntiMSG-Sensitivity 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| AntiMorning-Sickness | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| AntiPMS 100 mg/day/orl/wmn | Martindale's 29th |
| AntiPMS 50 mg/day | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| AntiTMJ 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiacne 50 mg/day | |
| Antiaggregant 40 mg/day | |
| Antianemic 50-400 mg/man/day | |
| Antiasthmatic 100-200 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiatherosclerotic 40 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiautistic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anticarpal-Tunnel 100-150 mg/day/12 wks/orl/man | Martindale's 29th |
| Anticheilitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidepressant 40-50 mg day | |
| Antidermatitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidiabetic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidote (Hydrazine) 10 g ivn | Martindale's 29th |
| Antidyskinetic 250-300 mg/man/4x/day | Martindale's 28th |
| Antiemetic 20-200 mg/man/day | Martindale's 28th |
| Antiepileptic 40 mg/day | |
| Antiglossitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antihomocystinuric 40 mg/day | |
| Antihyperkinetic 1.5-2 g/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antihyperventilation 40 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiinfertility 40 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antilithic 40 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antinephritic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antineuritic 150 mg/man/day | Martindale's 28th |
| Antineuropathic 50 mg | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antioxaluric | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiparkinsonian 50 mg day | |
| Antiprolactin | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiradiation | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antischizophrenic 50 mg/man/3x/day | Martindale's 28th |
| Antiseborrheic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antisickling | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antispasmodic 100 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiulcer | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antivertigo | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Dopaminergic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Neurotoxic 2-6 g/day for 2-24 mos | Martindale's 29th |
| Progesteronigenic 40 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |

RAFFINOSE

Plant

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Activities (1)

| | |
|------------|--|
| 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. |
|------------|--|

RUTIN

Leaf

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Activities (87)

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| 5-HT-Inhibitor | |
| Aldehyde-Oxidase-Inhibitor IC27-52=10 uM | |
| Aldose-Reductase-Inhibitor 100 uM | |
| Aldose-Reductase-Inhibitor 4 ug/ml | Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. <i>Sankyo Kenkyusho Nempo</i> , 43: 99-110. |
| Allelochemic | |
| AntiCVI 270 mg/man/day | |
| Antiaggregant ED50=33 nmol/kg iv | |

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|---|--|
| Antiallergic | |
| Antiapoplectic | |
| Antiatherogenic | |
| 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. |
| Anticancer | |
| Anticapillary-Fragility 20-100 mg orl man | Merck 7th Ed. |
| Anticataract | |
| Anticlastogen | |
| Anticonvulsant | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs.</i> CRC Press, Boca Raton, FL 388 pp. |
| Antidementia | Bruneton, J. 1999. <i>Pharmacognosy, Phytochemistry, Medicinal Plants.</i> 2nd Ed. Lavoisier Publishing, Paris. 1119 pp. |
| Antidermatitic | Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals.</i> CRC Press. Boca Raton, FL. 566 pp. |
| Antidiabetic | Jin, G-Z., Yamagata, Y., and Tomita, K.-i. 1989. Structure of Rutin Pentamethanol. <i>Chem. Pharm. Bull.</i> 38(2): 297-300, 1990. |
| Antiedemic 270 mg/day orl man | |
| Antierhythmic | |
| Antifeedant | |
| Antiglaucomic 60 mg/day | Werbach, M. 1993. <i>Healing with Food.</i> Harper Collins, New York, 443 pp. |
| Antihematuric | |
| Antihemorrhoidal | |
| Antihepatotoxic | Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp. |
| Antiherpetic | <i>Economic & Medicinal Plant Research</i> , 5: 198. |
| Antihistaminic | |
| Antihypertensive | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs.</i> CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory 20 mg/kg | |
| Antimalarial IC50=>100 ug/ml | Khalid, S.A., Farouk, A., Geary**, T.G., and Jensen, J.B. 1985. Potential Antimalarial Candidates From African Plants: An In Vitro Approach Using <i>Plasmodium falciparum</i> *. <i>Journal of Ethnopharmacology</i> , 15: 201-209, 1986. |
| Antimelanomic | |
| Antimetastatic | |
| Antimutagenic ID50=2-5 nM | |
| Antinephritic | |
| Antinociceptive | |
| Antioxidant IC28=30 ppm | |
| Antioxidant IC50=120 uM | |
| Antioxidant IC54=10 uM | |
| Antiperoxidant IC50=10-20 uM | |
| Antiplatelet | |
| Antiproliferant 50-75 uM/l | |
| Antiprotozoal | |
| Antipurpuric | |
| Antiradicular 9 x quercetin | |
| Antispasmodic | |
| Antisunburn | |
| Antithrombogenic EC50=500 nM | |
| Antithyroid IC50=68 uM | |
| Antitrypanosomic 100 mg/kg | <i>Planta Medica</i> , 57: A44, 1991. |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | |
| Antivaricose | |
| Antiviral | |
| Apoptotic 75 uM/l | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli.</i> Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Capillariprotective | Merck 11th Edition |
| Catabolic | |
| Chemopreventive | |
| Cytoprotective IC50=3 uM | |
| Estrogenic? | <i>Economic & Medicinal Plant Research</i> , 6: 189. |
| Hemostat | |
| Hepatomagenic 20,000 ppm (diet) rat | <i>Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention.</i> Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp. |
| Hepatoprotective 20 mg/kg rat | |

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|---|--|
| Hypocholesterolemic | Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp. |
| Hypotensive | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Immunomodulator | |
| Insecticide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectiphile | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Juvabional | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Larvostat IC95=4,000-8,000 ppm diet | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Lipoxygenase-Inhibitor IC75=2.5 mM | Ozmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690. |
| Mutagenic | Economic & Medicinal Plant Research, 6: 189. |
| Myoprotective | |
| Myorelaxant | Economic & Medicinal Plant Research, 6: 189. |
| Oviposition-Stimulant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| PAF-Inhibitor | |
| Pesticide | |
| Protisticide | |
| Radioprotective | |
| Sunscreen | |
| Topoisomerase-II-Inhibitor IC50=1 ug/ml | Bernard, F. X., Sable, S., Cameron, B., Provost, J., Desnottes, J. F., Cruzet, J., Blanche, F. 1997. Glycosylated Flavones as Selective Inhibitors of Topoisomerase IV. Antimicrobial Agents & Chemotherapy, 41: 992-998. |
| Vasodilator | |
| Vasopressor | |
| cAMP-Phosphodiesterase-Inhibitor | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |

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|--|---------|-------|-------|-------|---|
| SITOSTEROL-3-O-6-STEAROYL-BETA-D-GLUCOPYRANOSIDE | Plant | -- | -- | | * |
| SODIUM | Rhizome | 151.0 | 322.0 | -0.26 | * |

| | | | | | |
|-----------------------|--|--|--|--|--|
| Activities (1) | | | | | |
| Hypertensive | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. | | | | |

| | | | | | |
|-----------------------|--|----|----|--|---|
| STACHYOSE | Plant | -- | -- | | * |
| Activities (1) | | | | | |
| Flatulent | Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek (Trigonella foenum graecum L.). Plant Foods for Human Nutrition. 46: 77-84, 1994. | | | | |

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|-----------------------------|--|----|----|--|---|
| STEARIC-ACID | Plant | -- | -- | | * |
| Activities (8) | | | | | |
| 5-Alpha-Reductase-Inhibitor | | | | | |
| Cosmetic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| FLavor FEMA 2-4,000 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Hypocholesterolemic | 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. | | | | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry | | | | |
| Propepic | | | | | |
| Suppository | 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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|---------|---------|----|----|--|---|
| SUCROSE | Rhizome | -- | -- | | * |
|---------|---------|----|----|--|---|

Activities (14)

| | |
|-----------------------|--|
| Aggregant | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antihiccup 1 tsp | Martindale's 29th |
| Antiophthalmic | Martindale's 29th |
| Antioxidant | Merck 11th Edition |
| Atherogenic | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Collyrium | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Demulcent | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Flatugenic | Singh, J., Gupta, K., and Arora, S.K. 1993. Changes in the anti-nutritional factors of developing seeds and pod walls of fenugreek (<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 |

TANNIN

Plant

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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. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990. |
| Antiphidic | <i>Economic & Medicinal Plant Research</i> , 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. <i>Chem. Pharm. Bull.</i> 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. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990. |
| Antitumor | |
| Antitumor-Promoter | |
| Antiulcer | |
| Antiviral | |
| Cancer-Preventive | <i>HerbalGram</i> 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. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990. |
| Xanthine-Oxidase- Inhibitor | |

VALINE

Rhizome

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Activities (3)

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|---|--|
| Antiencephalopathic Essential FLavor FEMA 1,000-2,000 | Martindale's 29th Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
|---|--|

ZINC Rhizome 54.0 68.0 -0.13 *

Activities (77)

| | |
|--|--|
| ACE-Inhibitor | |
| Analgesic | |
| AntiBPH 25-60 mg/day | |
| AntiCrohn's | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| AntiHIV | |
| Antiacne 135 mg/day | |
| Antiacrodermatitic 8-34 mg/day/orl/chd | Martindale's 29th |
| Antialcoholic | |
| Antialopecic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antialzheimeran 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiangiogenic | |
| Antianorexic | Martindale's 29th |
| Antiarthritic 50 mg/3x/day/orl/man | |
| Anticanker 100 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticataract 30 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Anticoeliac | Martindale's 28th |
| Anticold 50 mg | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anticolitic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Anticoronary 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antidandruff | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antidementia | |
| Antidiabetic 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antidote (Cadmium) | Let's Live, May 1989. |
| Antidysgeuzic | |
| Antieczemic 150 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiencephalopathic | Martindale's 29th |
| Antiepileptic 100 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antifibrotic 30 mg | |
| Antifuruncular 45 mg/3x/day/man | Martindale's 28th |
| Antihangover 15 mg | |
| Antiherpetic? 25-60 mg/day | |
| Antiimpotence | Martindale's 29th |
| Antiinfective 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiinfertility 60 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antiinsomniac | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antileptic | Martindale's 29th |
| Antileukonychic | |
| Antilymphomic | |
| Antimaculitic | |
| Antimetastatic | |
| Antineuropathic | |
| Antinyctalopic | |
| 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 | |
| Antiplateau | Martindale's 29th |
| Antiprolactin | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antiprostatic 50 mg/man/day/orl | Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf). |
| Antirheumatic | Davies, S., and Stewart, A. 1990. Nutritional Medicine. Avon Books, New York. 509pp. |
| Antiseptic 50 mg/day | Werbach, M. 1993. Healing with Food. Harper Collins, New York, 443 pp. |
| Antispare-Tire 30 mg/day | Challem, J., Berkson, Burt, and Smith, Melissa Dianne. 2000. Syndrome X - The complete nutritional program to prevent and reserve insulin resistance. John Wiley & Sons, New York. 272 pp. \$24.95 |
| Antistomatitic 50 mg/man/3x/day | Martindale's 28th |

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|--|--|
| 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 |