

# List of All Chemicals

## **P** Rubus phoenicolasius (Rosaceae)

### Common name(s)

Wine Raspberry; Japanese Wineberry; Wineberry

### 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
CARYATIN	Inflorescence	--	--			Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones as Glandular Products in Rosa centifolia cv. muscosa and in Rubus phoenicolasius. Z Naturforsch Ser C, 48(11/12): 956-958.
CARYATIN	Flower	--	--			Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones from Rosa centifolia cv. muscosa and Rubus phoenicolasius. Z Naturforsch Ser C, 48(11/12): 956-958.
CASUARININ	Leaf	--	--			Okuda, T., Yoshida, T., Hatano, T., Iwasaki, M., Kubo, M., Orime, T., Yoshizaki, M., Naruhashi, N. 1992. Hydrolysable Tannins as Chemotaxonomic Markers in the Rosaceae. Phytochemistry, 31(9): 3091-3096.

#### Activities (4)

Antiperoxidant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Lipoxygenase-Inhibitor	
Topoisomerase-II-Inhibitor IC100=0.2 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.
Xanthine-Oxidase-Inhibitor IC50=36 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

CHLOROGENIC-ACID	Leaf	--	--			Okuda, T., Yoshida, T., Hatano, T., Iwasaki, M., Kubo, M., Orime, T., Yoshizaki, M., Naruhashi, N. 1992. Hydrolysable Tannins as Chemotaxonomic Markers in the Rosaceae. Phytochemistry, 31(9): 3091-3096.
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#### Activities (77)

Aldose-Reductase-Inhibitor IC50=1.8 uM rat (strong activity)	Yoshikawa, M., et al. 1999. Medicinal Flowers. I. Aldose Reductase Inhibitors and Three New Eudesmane-Type Sesquiterpenes, Kikkanols A, B, and C, From the Flowers of Chrysanthemum indicum L. Chem Pharm Bull, 47(3): 340-345.
Allelochemic	
Allergenic	
Analgesic	
AntiEBV	Economic & Medicinal Plant Research, 6: 189.
AntiHIV	Economic & Medicinal Plant Research, 6: 189.
AntiLegionella	
Antiatherosclerotic	
Antibacterial	
Anticancer (Colon)	
Anticancer (Forestomach)	
Anticancer (Liver)	
Anticancer (Skin)	
Anticarcinogenic	
Antidiabetic	
Antifeedant	
Antigenotoxic	
Antigonadotropic	Jim Duke's personal files.
Antihemolytic 10 uM	Ohnishi, M., Morishita, H., Iwashita, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. Phytochemistry. 36(3): 579-583. 1994.
Antihepatotoxic	
Antiherpetic	Economic & Medicinal Plant Research, 5: 194.
Antihistaminic	
Antihypercholesterolemic	Economic & Medicinal Plant Research, 6: 189.
Antikynurenicid	

Antinflammatory	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Antileukotriene	
Antimelanogenic	
Antimutagenic	
Antinitrosaminic	
Antioxidant IC53=200 ppm	Huang, M-T., and Ferraro, T. Phenolic Compounds in Food and Cancer Prevention. Phenolic Compounds in Food and Their Effects on Health, Ch.2 p.21.
Antioxidant IC80=12 uM	
Antioxidant IC50=54.2 uM	
Antiperoxidant IC50=36 uM	Planta Medica, 57: A54, 1991.
Antipolio	Jim Duke's personal files.
Antiradicular 10 uM	Ohnishi, M., Morishita, H., Iwashashi, H., Toda, S., Shirataki, Y., Kimura, M., and Kido, R. 1993. Inhibitory Effects of Chlorogenic Acids on Linoleic Acid Peroxidation and Haemolysis. Phytochemistry. 36(3): 579-583. 1994.
Antiradicular 9 x quercetin	
Antiseptic	
Antisunburn	
Antithyroid	Jim Duke's personal files.
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antitumor (Colon)	
Antitumor (Forestomach)	
Antitumor (Liver)	
Antitumor (Skin)	
Antitumor-Promoter IC25=10 uM	
Antiulcer	Economic & Medicinal Plant Research, 6: 189.
Antiviral	Vlietinck, A.J. and Dommissse, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Autotoxic	
CNS-Active	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
CNS-Stimulant 1/6 Caffeine	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardioprotective	
Chemopreventive	
Cholagogue	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Choleretic	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Clastogenic	Friedman, M. and Dao, L. 1990. Effect of Autoclaving and Conventional and Microwave Baking on the Ergot Alkaloid and Chlorogenic Acid Contents of Morning Glory (Ipomoea tricolor Cav. cv.) Heavenly Blue Seeds. J. Agric. Food Chem. 38: 805-808.
Collagen-Sparing	
Diuretic	
Fungicide	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Hepatoprotective	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
Histamine-Inhibitor	
Hypoglycemic	
Immunostimulant	
Insectifuge	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
Interferonogenic	Economic & Medicinal Plant Research, 1: 124.
Juvabional	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Larvostat	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Leukotriene-Inhibitor	
Lipoxygenase-Inhibitor IC23=5 mM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. J. Agric. Food Chem. 38: 688-690.
Metal-Chelator	McEvily, A.J., Iyengar, R., and Gross, A.T. Inhibition of Polyphenol Oxidase by Phenolic Compounds. Phenolic Compounds in Food and Their Effects on Health, Ch.25.
NO-Genic	
Ornithine-Decarboxylase-Inhibitor	Hagerman, A.E. Tannin-Protein Interactions. Phenolic Compounds in Food and Their Effects on Health, Ch.19.
Oviposition-Stimulant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	
Sunscreen	
Sweetener	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Vulnerary	

CHRYSANTHEMIN	Fruit	--	--	Torre, L. C., Barritt, B. H. 1977. Quantitative Evaluation of Rubus Fruit Anthocyanin Pigments. J. Food Sci., 42: 488.
CYANIDIN-3-O-BETA-D-RUTINOSIDE	Fruit	--	--	Torre, L. C., Barritt, B. H. 1977. Quantitative Evaluation of Rubus Fruit Anthocyanin Pigments. J. Food Sci., 42: 488.

ERIODICTYOL Flower -- -- Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones from *Rosa centifolia* cv. *muscosa* and *Rubus phoenicolasius*. Z Naturforsch Ser C, 48(11/12): 956-958.

**Activities (10)**

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

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.

Antiinflammatory

Antioxidant

Antiperoxidant Planta Medica, 57: A110, 1991.

Aphidifuge

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Expectorant Lawrence Review of Natural Products, Mar-91.

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

Pesticide

ERIODICTYOL-7-METHYL-ETHER Flower -- -- Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones from *Rosa centifolia* cv. *muscosa* and *Rubus phoenicolasius*. Z Naturforsch Ser C, 48(11/12): 956-958.

ISOKAEMPFERIDE Flower -- -- Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones from *Rosa centifolia* cv. *muscosa* and *Rubus phoenicolasius*. Z Naturforsch Ser C, 48(11/12): 956-958.

LAMBERTIANIN-C Leaf -- -- Tanaka,T., Tachibana,H., Nonaka,G., Nishioka,I., Hsu,F.L., Kohda,H., Tanaka,O. 1993. Tannins and Related Compounds. CXXII. New Dimeric, Trimeric and Tetrameric Ellagitannins, Lambertianins A-D, from *Rubus lambertianus*. Chem & Pharm Bull, 41(7): 1214-1220.

LAMBERTIANIN-D Leaf -- -- Tanaka,T., Tachibana,H., Nonaka,G., Nishioka,I., Hsu,F.L., Kohda,H., Tanaka,O. 1993. Tannins and Related Compounds. CXXII. New Dimeric, Trimeric and Tetrameric Ellagitannins, Lambertianins A-D, from *Rubus lambertianus*. Chem & Pharm Bull, 41(7): 1214-1220.

PEDUNCULAGIN Leaf -- -- \*

**Activities (9)**

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.

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

Antimutagenic Economic & Medicinal Plant Research, 6: 235.

Antioxidant

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

Beta-Adrenergic Receptor Blocker 10 uM Zhu, M., Phillipson, J. D., Greengrass, P. M., Bowery, N. E., Cai, Y. 1997. Plant Polyphenols: Biologically Active Compounds or Non-Selective Binders to Protein? Phytochemistry, 44(3): 441-447.

Topoisomerase-I-Inhibitor 0.03 ug/ml Ooishi, K., Kato, J., Hayamizu, K. 1994. Topoisomerase Inhibitors Containing Tannins, Especially Pedunculagin, for Treatment of Cancer. Patent, Japan Kokai Tokyo Koho-06 72,885. 7pp.

Topoisomerase-II-Inhibitor IC100=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.

Xanthine-Oxidase-Inhibitor IC50=18 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

QUERCETIN-3'-METHYLETHER Flower -- -- Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones from *Rosa centifolia* cv. *muscosa* and *Rubus phoenicolasius*. Z Naturforsch Ser C, 48(11/12): 956-958.

**Activities (2)**

Antihistaminic

Cancer-Preventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

QUERCETIN-3,3'-DIMETHYLETHER Inflorescence -- -- Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones as Glandular Products in *Rosa centifolia* cv. *muscosa* and in *Rubus phoenicolasius*. Z Naturforsch Ser C, 48(11/12): 956-958.

**Activities (1)**

Antiviral

QUERCETIN-3,3'-DIMETHYLETHER Flower -- -- Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones from *Rosa centifolia* cv. *muscosa* and *Rubus phoenicolasius*. Z Naturforsch Ser C, 48(11/12): 956-958.

**Activities (1)**

Antiviral

SANGUIIN-H-11 Leaf -- -- Okuda, T., Yoshida, T., Hatano, T., Iwasaki, M., Kubo, M., Orime, T., Yoshizaki, M., Naruhashi, N. 1992. Hydrolysable Tannins as Chemotaxonomic Markers in the Rosaceae. *Phytochemistry*, 31(9): 3091-3096.

#### Activities (1)

Topoisomerase-II-Inhibitor IC100=0.2 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.

SANGUIIN-H-6 Leaf -- -- Okuda, T., Yoshida, T., Hatano, T., Iwasaki, M., Kubo, M., Orime, T., Yoshizaki, M., Naruhashi, N. 1992. Hydrolysable Tannins as Chemotaxonomic Markers in the Rosaceae. *Phytochemistry*, 31(9): 3091-3096.

#### Activities (5)

##### Antiangiogenic

Topoisomerase-I-Inhibitor IC50=0.02-5 uM Bastow, K.F., Bori, I.D., Fukushima, Y., Kashiwada, Y., Tanaka, T., Nonaka, G., Nishioka, I., Lee, K.H. 1993. Inhibition of DNA Topoisomerases by Sanguin H-6, a Cytotoxic Dimeric Ellagitannin From *Sanguisorba officinalis*. *Planta Medica*, 59: 240-245.

Topoisomerase-II-Inhibitor IC50=0.01-0.16 uM Bastow, K.F., Bori, I.D., Fukushima, Y., Kashiwada, Y., Tanaka, T., Nonaka, G., Nishioka, I., Lee, K.H. 1993. Inhibition of DNA Topoisomerases by Sanguin H-6, a Cytotoxic Dimeric Ellagitannin From *Sanguisorba officinalis*. *Planta Medica*, 59: 240-245.

Topoisomerase-II-Inhibitor IC100=0.2 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.

VEGF-Inhibitor IC50=7.4 ug/ml

SCOPAROL Inflorescence -- -- Wollenweber, E., Dorr, M., Armbruster, S. 1993. Flavonoid Aglycones as Glandular Products in *Rosa centifolia* cv. *muscosa* and in *Rubus phoenicolasius*. *Z Naturforsch Ser C*, 48(11/12): 956-958.