

# List of All Chemicals

## **P** Eucalyptus rostratus (Myrtaceae)

### Common name(s)

Gum

### 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	Low PPM	High PPM	StdDev	*Reference
	All				
1,2,6-TRI-O-GALLOYL-BETA-D-GLUCOSE	Plant	--	--		Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in Eucalyptus rostrata. <i>Phytochemistry</i> . 33(3): 557-561. 1993.
<b>Activities (4)</b>					
Antioxidant	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in Eucalyptus rostrata. <i>Phytochemistry</i> . 33(3): 557-561. 1993.				
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? <i>Phytochemistry</i> , 44(3): 441-447.				
Topoisomerase-II-Inhibitor IC100=0.2 uM	Kashiwada, Y., Nonaka, G. I., Nishioka, J., Lee, J. H., Bori, I., Fukushima, Y., Bastow, K. F., Lee, K. H. 1993. Tannins as Potent Inhibitors of DNA Topoisomerase II in vitro. <i>J Pharm Sci</i> , 82: 487-492.				
Xanthine-Oxidase-Inhibitor IC50=39 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				
HYPEROSIDE	Plant	--	--		Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in Eucalyptus rostrata. <i>Phytochemistry</i> . 33(3): 557-561. 1993.

**Activities (30)**

Aldose-Reductase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Analgesic	
Antiaging	
Antibacterial MIC=250-500 ug/ml	Planta Medica, 57: A43, 1991.
Anticancer	
Anticapillary-Fragility	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.
Antidermatitic	
Antielastase IC50=0.15 ug/ml	
Antiflu	Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980.
Antihepatotoxic	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.
Antiinflammatory 1/4 indomethacin	Planta Medica, 57: A131, 1991.
Antischematic	
Antinociceptive	
Antioxidant IC50=4.6 uM	
Antiradicular	
Antitussive	
Antiviral	
Antiwrinkle	
Calcium-Antagonist	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Capillarifortificant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Capillarigenic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Cyclooxygenase-Activator 100 uM	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Diuretic	
Hepatoprotective IC80=30 ug/ml	Mayumi Ito (nee Someya), et al. 1990. Hepatoprotective Compounds from Canarium album and Euphorbia nematocypa. Chem. Pharm. Bull. 38(8): 2201-2203, 1990.
Hypotensive ivn dog	
Pesticide	
Tissue-Thromboplastin-Inhibitor IC50=20.8 uM	
Xanthine-Oxidase-Inhibitor	
cAMP-Inhibitor IC50=0.14 mg/ml	Schussler, M., Fricke, U., Nikolov, N., and Holz, J. 1991. Comparison of the Flavonoids Occurring in Crataegus species and Inhibition of 3',5'-Cyclic Adenosine Monophosphate Phosphodiesterase. Plant Medica 57: Suppl Issue 2. p.A-133.

ISOQUERCITRIN	Plant	--	--	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in Eucalyptus rostrata. Phytochemistry. 33(3): 557-561. 1993.
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**Activities (22)**

ACE-Inhibitor ID50=300 ug/ml rat (24 hr.)

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

Anticancer

Antielastase IC50=0.7 ug/ml

Antifeedant Russell, G. B., *Phytochemical resources for crop protection*, N. Z. J. Technol., 2, 1986, 127-134.

Antiinflammatory

Antinociceptive

Antioxidant 1/4 quercetin

Antioxidant IC50=9.0 uM

Antiradicular 1/4 quercetin

Antitumor

Antitumor-Promoter

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

Capillarigenic

Diaphoretic

Diuretic 10 ppm List, P.H. and Horhammer, L., *Hager's Handbuch der Pharmazeutischen Praxis*, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.Hypotensive Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. *Chem. Pharm. Bull.* 38(4): 1049-1052, 1990.Insectiphile Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

Pesticide

TNF-alpha-Inhibitor

Topoisomerase-II-Inhibitor 550 ug/ml Bernard, F. X., Sable, S., Cameron, B., Provost, J., Desnottes, J. F., Crouzet, J., Blanche, F. 1997. Glycosylated Flavones as Selective Inhibitors of Topoisomerase IV. *Antimicrobial Agents & Chemotherapy*, 41: 992-998.

KAEMPFEROL-3-O-ALPHA-ARABINOPYRANOSIDE-2"-GALLATE	Plant	--	--	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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**Activities (1)**

Antioxidant	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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MYRICETIN-3-O-ALPHA-L-ARABINOPYRANOSIDE	Plant	--	--	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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**Activities (1)**

Antioxidant	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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QUERCETIN-3-O-ALPHA-ARABINOPYRANOSIDE-2"-GALLATE	Plant	--	--	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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Antioxidant	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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QUERCETIN-4'-GLUCOSYL-GALLATE	Plant	--	--	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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**Activities (1)**

Antioxidant	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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QUERCETIN-4'-O-BETA-D-GLUCOPYRANOSIDE-6"-GALLATE	Plant	--	--	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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**Activities (1)**

Antioxidant	Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in <i>Eucalyptus rostrata</i> . <i>Phytochemistry</i> . 33(3): 557-561. 1993.
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SPIRAEOSIDE                      Plant      --      --                      Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in *Eucalyptus rostrata*. *Phytochemistry*. 33(3): 557-561. 1993.

**Activities (4)**

Aldose-Reductase-Inhibitor IC<sub>9</sub>=1 μM

Aldose-Reductase-Inhibitor IC<sub>51</sub>=10 μM

Antioxidant

Quinone-Reductase-Inducer

Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. *Phytochemistry*, 23: 1885-1888.  
Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in *Eucalyptus rostrata*. *Phytochemistry*. 33(3): 557-561. 1993.  
Yannai, S., Day, A. J., Williamson, G., Rhodes, M. J. C. 1998. Characterization of Flavonoids as Monofunctional or Bifunctional Inducers of Quinone Reductase in Murine Hepatoma Cell Lines. *Food Chem Toxicol*, 36(8): 623-630.

TELLIMAGRANIN                      Plant      --      --                      Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in *Eucalyptus rostrata*. *Phytochemistry*. 33(3): 557-561. 1993.

**Activities (1)**

Antioxidant      Okamura, H., Mimura, A., Yakou, Y., Niwano, M., and Takahara, Y. 1992. Antioxidant Activity of Tannins and Flavonoids in *Eucalyptus rostrata*. *Phytochemistry*. 33(3): 557-561. 1993.