

List of All Chemicals

P *Mitragyna speciosa* (Rubiaceae)

Common name(s)

Kratom

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="text" value="All"/>	Low PPM	High PPM	StdDev	*Reference
(-)-EPICATECHIN	Leaf	--	150.0	-0.73	*

Activities (38)

5-Lipoxygenase-Inhibitor IC50=22-50 uM/l	
ACE-Inhibitor IC50=0.216 mM/l	
ACE-Inhibitor 0.5 mg/ml rbt (weak activity)	
Allelochemic	Hanke, F. J., Natural Products as a Resource for Biologically Active Compounds, Thesis, U. Cal (Santa Cruz), 1986, 252 pp
AntiEBV	Economic & Medicinal Plant Research, 6: 189.
AntiHIV EC50=2 ug/ml	
Antiaggregant	
Antianaphylactic	
Antibacterial	
Antidiabetic 30 mg/kg rat	
Antihepatic	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Antihyperglycemic	
Antiinflammatory	
Antileukemic	Economic & Medicinal Plant Research, 6: 189.
Antileukotriene	
Antilipoperoxidant	
Antimutagenic	
Antioxidant IC50=6.3 ug/ml	
Antiperoxidant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral EC50=2 ug/ml	
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.
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.
Cardiotonic	
Choline-Sparing	
Cytotoxic TC50=>100 ug/ml	
Hypocholesterolemic	
Hypoglycemic	
Immunostimulant	
Insulinogenic	Economic & Medicinal Plant Research, 6: 170.
Lipoxygenase-1-Inhibitor IC50=60 mM	
Lipoxygenase-Inhibitor IC50=140 uM	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.
Lipoxygenase-Inhibitor IC97=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.
Pancreatogenic	
Pesticide	
Reverse-Transcriptase-Inhibitor 10 ng/ml	McKenna, D. J., Hughes, K., and Jones, K. 2000. Green Tea Monograph. Alternative Therapies, 6(3): 61-82.
Vasodilator uM	McKenna, D. J., Hughes, K., and Jones, K. 2000. Green Tea Monograph. Alternative Therapies, 6(3): 61-82.
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

3-DEHYDROMITRAGYNINE	Leaf	--	36.0	*
AJMALICINE	Leaf	--	--	*

Activities (11)

Adrenolytic	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.
Antiadrenergic	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Antiaggregant	
Antidiuretic	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Antihypertensive	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
CNS-Depressant	
Cerebrocirculant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Circulotonic	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Hypotensive	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.
Sympatholytic	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.
Tranquilizer	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

CORYNANTHEIDALINE	Leaf	--	--		*
CORYNANTHEIDINE	Leaf	--	--		*
EPICATECHIN	Leaf	--	150.0	-1.0	*

Activities (40)

Allochemic IC100=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.
Anabolic	
AntiEBV	Economic & Medicinal Plant Research, 6: 189.
AntiHIV EC50=2 ug/ml	
Antiaggregant IC94=200 ug/ml	
Antianaphylactic	
Antibacterial MIC=>1,000 ug/ml	
Anticomplementary 1/2 aspirin	
Antidiabetic 30 mg/kg rat	
Antifeedant	
Antihepatitic	Vlietinck, A.J. and Dommissie, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.
Antihyperglycemic	
Antiinflammatory	
Antileukemic IC50=>10 ug/ml	
Antilipoperoxidant	
Antimutagenic	
Antioxidant IC50=6.3 ug/ml	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.
Antioxidant 2.5 x Vit. E	
Antioxidant IC50=10.2 uM	
Antioxidant 3/4 quercetin	
Antiperoxidant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Cardiotonic	
Choline-Sparing	Singleton, V.L. 1981. Naturally Occurring Food Toxicants: Phenolic Substances of Plant Origin Common in Foods. Advances in Food Research 27: 149-217.
Hepatotropic	
Hypocholesterolemic	Singleton, V.L. 1981. Naturally Occurring Food Toxicants: Phenolic Substances of Plant Origin Common in Foods. Advances in Food Research 27: 149-217.
Hypoglycemic	
Insulinogenic	Economic & Medicinal Plant Research, 6: 170.
Interleukin-1-alpha-Inhibitor	
Interleukin-6-mRNA-Inhibitor	
Lipoxygenase-Inhibitor IC50=140 uM	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.
Lipoxygenase-Inhibitor IC97=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.
NO-Inhibitor	
Pancreatogenic	
Peroxy-nitrite-Scavenger IC50=0.181 ug/ml	
Pesticide	
Propepic	
TNF-alpha-Inhibitor	
Xanthine-Oxidase-Inhibitor IC50=>40	

ISOMITRAFOLINE	Plant	--	--	*
ISOMITRAPHYLLINE	Leaf	--	--	*
Activities (3)				
Antileukemic IC50=45-60 uM/l				
Immunostimulant				
Phagocytotic				
ISOSPECIOFOLINE	Plant	--	--	*
MITRACILIATINE	Leaf	--	32.0	*
MITRAGYNALINE	Leaf	--	--	*
MITRAGYNINE	Leaf	--	86.0	*

Activities (6)					
Analgesic	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)				
Anesthetic					
CNS-Stimulant					
Hypotensive					
Myorelaxant					
Vasodilator					
MITRAGYNOL	Plant	--	--		*
MITRAPHYLLINE	Leaf	--	--		*
Activities (12)					
Anesthetic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Antihypertensive	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Antileukemic IC50=60-120 uM/l					
CNS-Depressant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Cardiodepressant	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Hypotensive	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Immunostimulant					
Myocontractant	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Myorelaxant					
Pesticide					
Protisticide	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Vasodilator					
MITRASPECINE	Seed	--	--		*
MITRAVERSINE	Plant	--	--		*
PAYNANTHEINE	Leaf	--	50.0		*
RHYNCHOPHYLLINE	Leaf	--	--		*
Activities (23)					
Anesthetic	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Antiaggregant					
Antidementia					
Antiexcitotoxic					
Antihypertensive					
Antiischemic					
Antioxidant					
Antipyretic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.				
Antiradicular					
Antithrombotic					
Calcium-Antagonist 10.1 uM rat					
Calcium-Blocker					
Cardiodepressant	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Dopaminergic					
Febrifuge					
Hypotensive					
Myocontractant	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Neuroparalytic					
Protisticide	Iwu, M.M. 1993. Handbook of African Medicinal Plants. CRC Press, Boca Raton, FL 435 pp.				
Sedative					
Serotonergic					
Uterotonic					
Vasodilator					
ROTUNDIFOLINE	Plant	--	--		*
SPECIOCILIATINE	Leaf	--	30.0		*

Activities (2)Analgesic
Antitussive

SPECIOFOLINE	Leaf	--	--	*
SPECIOGYNINE	Leaf	--	44.0	*
SPECIOPHYLLINE	Leaf	--	--	*

Activities (1)

Antileukemic IC50=60 uM/l

STIPULATINE	Leaf	--	--	*
UNCARINE-D	Plant	--	--	*

Activities (1)

Cytotoxic ED50=36 Collins, D.J., Culvenor, C.C.J., Lamberton, J.A., Loder, J.W. and Price, J.R., Plants for Medicines, CSIRO, East Melbourne, Australia, 1990, 303 pp.