

List of All Chemicals

P Diospyros melanoxylon (Ebenaceae)

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
BETULIN	Wood	100.0	200.0	-0.61	Jim Duke's personal files.
Activities (13)					
AntiHIV 6.1 uM					
Anticarcinomic					
Antifeedant					
Antiflu					
Antiinflammatory					Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antitumor					Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 6.1 uM					
Aphidifuge					Lugemwa, F.N., Huang, F-Y., Bentley, M.D., Mendel, M.J., and Alford, A.R. 1990. A Heliothis zea Antifeedant from the Abundant Birchbark Triterpene Betulin. J. Agric. Food Chem. 38(2): 493-494.
Cytotoxic 600 ppm					
Cytotoxic 8.6 uM					
Hypolipemic					
Prostaglandin-Synthesis-Inhibitor IC50=119 uM					Huang, C., Tunon, H., Bohlin, L. 1995. Anti-Inflammatory Compounds Isolated from Menyanthes trifoliata L. Yao Hsueh Hsueh Pao, 30(8): 621-626.
Topoisomerase-II-Inhibitor IC50=38.6 uM					
BETULIN	Stem Bark	--	2500.0	0.63	Jim Duke's personal files.
Activities (13)					
AntiHIV 6.1 uM					
Anticarcinomic					
Antifeedant					
Antiflu					
Antiinflammatory					Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antitumor					Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 6.1 uM					
Aphidifuge					Lugemwa, F.N., Huang, F-Y., Bentley, M.D., Mendel, M.J., and Alford, A.R. 1990. A Heliothis zea Antifeedant from the Abundant Birchbark Triterpene Betulin. J. Agric. Food Chem. 38(2): 493-494.
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Topoisomerase-II-Inhibitor IC50=38.6 uM					
BETULIN	Plant	--	2000.0	2.08	Jim Duke's personal files.

Activities (13)					
AntiHIV 6.1 uM					
Anticarcinomic					
Antifeedant					
Antiflu					
Antiinflammatory					Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. <i>Planta Medica</i> , 61: 9.
Antitumor					Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antiviral 6.1 uM					
Aphidifuge					Lugemwa, F.N., Huang, F.-Y., Bentley, M.D., Mendel, M.J., and Alford, A.R. 1990. A <i>Heliothis zea</i> Antifeedant from the Abundant Birchbark Triterpene Betulin. <i>J. Agric. Food Chem.</i> 38(2): 493-494.
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Topoisomerase-II-Inhibitor IC50=38.6 uM					

BETULIN Leaf -- -- Jim Duke's personal files.

Activities (13)					
AntiHIV 6.1 uM					
Anticarcinomic					
Antifeedant					
Antiflu					
Antiinflammatory					Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. <i>Planta Medica</i> , 61: 9.
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Topoisomerase-II-Inhibitor IC50=38.6 uM					

BETULIN Heart Wood -- 200.0 1.0 Jim Duke's personal files.

Activities (13)					
AntiHIV 6.1 uM					
Anticarcinomic					
Antifeedant					
Antiflu					
Antiinflammatory					Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. <i>Planta Medica</i> , 61: 9.
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Topoisomerase-II-Inhibitor IC50=38.6 uM					

BETULIN Fruit -- -- Jim Duke's personal files.

Activities (13)

AntiHIV 6.1 uM

Anticarcinomic

Antifeedant

Antiflu

Antiinflammatory

Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from *Diospyros leucomelas**. *Planta Medica*, 61: 9.

Antitumor

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

Antiviral 6.1 uM

Aphidifuge

Lugemwa, F.N., Huang, F.-Y., Bentley, M.D., Mendel, M.J., and Alford, A.R. 1990. A *Heliothis zea* Antifeedant from the Abundant Birchbark Triterpene Betulin. *J. Agric. Food Chem.* 38(2): 493-494.

Cytotoxic 600 ppm

Cytotoxic 8.6 uM

Hypolipemic

Prostaglandin-Synthesis-Inhibitor IC50=119 uM

Huang, C., Tunon, H., Bohlin, L. 1995. Anti-Inflammatory Compounds Isolated from *Menyanthes trifoliata* L. *Yao Hsueh Hsueh Pao*, 30(8): 621-626.

Topoisomerase-II-Inhibitor IC50=38.6 uM

BETULIN	Bark	--	5000.0	0.34	Jim Duke's personal files.
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Activities (13)

AntiHIV 6.1 uM

Anticarcinomic

Antifeedant

Antiflu

Antiinflammatory

Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from *Diospyros leucomelas**. *Planta Medica*, 61: 9.

Antitumor

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

Antiviral 6.1 uM

Aphidifuge

Lugemwa, F.N., Huang, F.-Y., Bentley, M.D., Mendel, M.J., and Alford, A.R. 1990. A *Heliothis zea* Antifeedant from the Abundant Birchbark Triterpene Betulin. *J. Agric. Food Chem.* 38(2): 493-494.

Cytotoxic 600 ppm

Cytotoxic 8.6 uM

Hypolipemic

Prostaglandin-Synthesis-Inhibitor IC50=119 uM

Huang, C., Tunon, H., Bohlin, L. 1995. Anti-Inflammatory Compounds Isolated from *Menyanthes trifoliata* L. *Yao Hsueh Hsueh Pao*, 30(8): 621-626.

Topoisomerase-II-Inhibitor IC50=38.6 uM

BETULINIC-ACID	Fruit	--	--		Jim Duke's personal files.
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Activities (22)

Anthelmintic	
AntiHIV EC50=2.0 ug/ml	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
AntiHIV IC50=6.5 ug/ml	
AntiHIV 14.8 uM	
Antibacterial	
Anticancer	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticarcinomic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiedemic	
Antiinflammatory	Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antileukemic	
Antimalarial IC50=19-26 ug/ml	
Antimelanomic	New York Times, 3/28/95.
Antinociceptive	
Antiplasmodial IC50=19-26 ug/ml	
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 14.8 uM	
Apoptotic	
Cytotoxic 50-100 ppm	Biosyn. Prod. Cancer Chemotherapy (Petit et al)
Cytotoxic 16.4 uM	
Phospholipase-A2-Inhibitor	
Prostaglandin-Synthesis-Inhibitor 200 ug/ml	Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphonis zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.
Prostaglandin-Synthesis-Inhibitor IC50=101 uM	Huang, C., Tunon, H., Bohlin, L. 1995. Anti-Inflammatory Compounds Isolated from Menyanthes trifoliata L. Yao Hsueh Hsueh Pao, 30(8): 621-626.

BETULINIC-ACID

Bark

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Jim Duke's personal files.

Activities (22)

Anthelmintic	
AntiHIV EC50=2.0 ug/ml	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
AntiHIV IC50=6.5 ug/ml	
AntiHIV 14.8 uM	
Antibacterial	
Anticancer	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Anticarcinomic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiedemic	
Antiinflammatory	Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antileukemic	
Antimalarial IC50=19-26 ug/ml	
Antimelanomic	New York Times, 3/28/95.
Antinociceptive	
Antiplasmodial IC50=19-26 ug/ml	
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 14.8 uM	
Apoptotic	
Cytotoxic 50-100 ppm	Biosyn. Prod. Cancer Chemotherapy (Petit et al)
Cytotoxic 16.4 uM	
Phospholipase-A2-Inhibitor	
Prostaglandin-Synthesis-Inhibitor 200 ug/ml	Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphonis zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.
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BETULINIC-ACID

Leaf

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Jim Duke's personal files.

Activities (22)					
Anthelmintic					
AntiHIV EC50=2.0 ug/ml					Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
AntiHIV IC50=6.5 ug/ml					
AntiHIV 14.8 uM					
Antibacterial					
Anticancer					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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Antileukemic					
Antimalarial IC50=19-26 ug/ml					
Antimelanomic					New York Times, 3/28/95.
Antinociceptive					
Antiplasmodial IC50=19-26 ug/ml					
Antitumor					Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 14.8 uM					
Apoptotic					
Cytotoxic 50-100 ppm					Biosyn. Prod. Cancer Chemotherapy (Petit et al)
Cytotoxic 16.4 uM					
Phospholipase-A2-Inhibitor					
Prostaglandin-Synthesis-Inhibitor 200 ug/ml					Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphonis zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.
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BETULINIC-ACID	Wood	100.0	1000.0	0.07	*
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Activities (22)					
Anthelmintic					
AntiHIV EC50=2.0 ug/ml					Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
AntiHIV IC50=6.5 ug/ml					
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Antiinflammatory					Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antileukemic					
Antimalarial IC50=19-26 ug/ml					
Antimelanomic					New York Times, 3/28/95.
Antinociceptive					
Antiplasmodial IC50=19-26 ug/ml					
Antitumor					Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 14.8 uM					
Apoptotic					
Cytotoxic 50-100 ppm					Biosyn. Prod. Cancer Chemotherapy (Petit et al)
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Phospholipase-A2-Inhibitor					
Prostaglandin-Synthesis-Inhibitor 200 ug/ml					Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphonis zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.
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BETULINIC-ACID	Stem Bark	--	100.0	-0.39	Jim Duke's personal files.
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Activities (22)

Anthelmintic	
AntiHIV EC50=2.0 ug/ml	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
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Antibacterial	
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Antiedemic	
Antiinflammatory	Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.
Antileukemic	
Antimalarial IC50=19-26 ug/ml	
Antimelanomic	New York Times, 3/28/95.
Antinociceptive	
Antiplasmodial IC50=19-26 ug/ml	
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 14.8 uM	
Apoptotic	
Cytotoxic 50-100 ppm	Biosyn. Prod. Cancer Chemotherapy (Petit et al)
Cytotoxic 16.4 uM	
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Prostaglandin-Synthesis-Inhibitor 200 ug/ml	Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphitonia zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.
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BETULINIC-ACID Plant -- 50.0 -0.63 Jim Duke's personal files.

Activities (22)

Anthelmintic	
AntiHIV EC50=2.0 ug/ml	Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.
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Antimalarial IC50=19-26 ug/ml	
Antimelanomic	New York Times, 3/28/95.
Antinociceptive	
Antiplasmodial IC50=19-26 ug/ml	
Antitumor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiviral 14.8 uM	
Apoptotic	
Cytotoxic 50-100 ppm	Biosyn. Prod. Cancer Chemotherapy (Petit et al)
Cytotoxic 16.4 uM	
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Prostaglandin-Synthesis-Inhibitor 200 ug/ml	Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphitonia zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.
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BETULINIC-ACID Heart Wood -- 100.0 -0.77 Jim Duke's personal files.

Activities (22)**Anthelmintic**

AntiHIV EC50=2.0 ug/ml Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. J. Nat. Prod., 61 (9): 1090-1095.

AntiHIV IC50=6.5 ug/ml

AntiHIV 14.8 uM

Antibacterial

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

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

Antiedemic

Antiinflammatory Recio, M., et al. 1994. Investigations on the Steroidal Anti-Inflammatory Activity of Triterpenoids from Diospyros leucomelas*. Planta Medica, 61: 9.

Antileukemic

Antimalarial IC50=19-26 ug/ml

Antimelanomic New York Times, 3/28/95.

Antinociceptive

Antiplasmodial IC50=19-26 ug/ml

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

Antiviral 14.8 uM

Apoptotic

Cytotoxic 50-100 ppm Biosyn. Prod. Cancer Chemotherapy (Petit et al)

Cytotoxic 16.4 uM

Phospholipase-A2-Inhibitor

Prostaglandin-Synthesis-Inhibitor 200 ug/ml Dunstan, C. A., Liu, B., Welch, C. J., Perera, P., Bohlin, L. 1998. Alphitol, a Phenolic Substance from Alphonis zizyphoides which Inhibits Prostaglandin Biosynthesis in vitro. Phytochemistry, 48(3): 495-497.

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