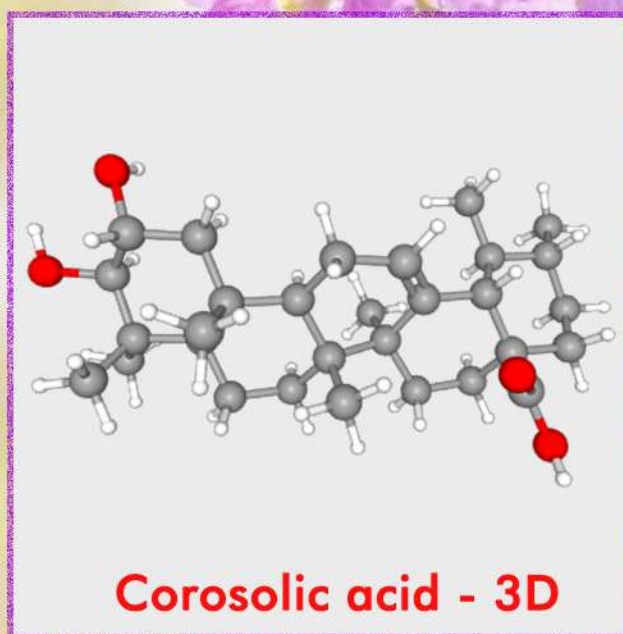
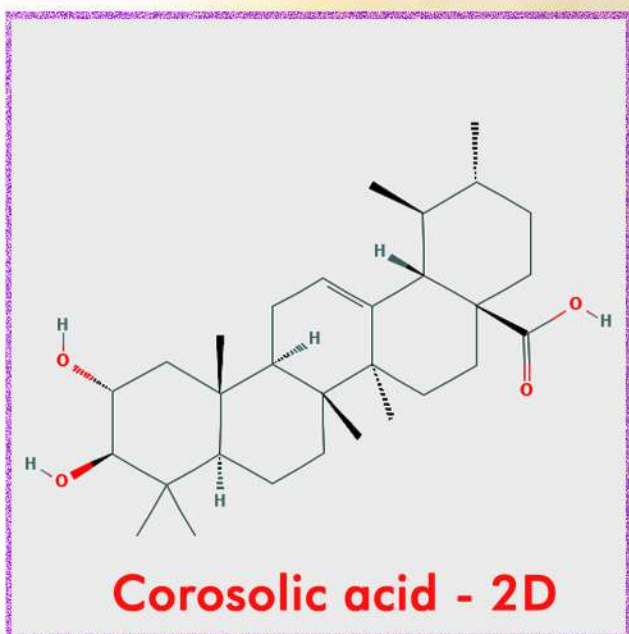


Banaba Leaf Extract

Lagerstroemia speciosa is commonly known as crape myrtle belonging to the Lythraceae family. *Lagerstroemia speciosa* or Banaba is a medicinal tree traditionally used to lower blood sugar in the body. Its high content of corosolic acid makes it an effective anti-diabetic drug. Banaba is also recommended for kidney, bladder problems and hypertension. Leaves of the species have been traditionally used over thousands of years as folkloric treatment by the native Indians and Japanese for illness, ailments particularly for lowering blood sugar levels and weight loss. The flower extracts of the species has some pharmacological properties like antioxidant and anti-microbial activities, whereas fruit extracts reported anti-nociceptive, anti-diarrhea and cytotoxic activities.

Research on leaf extracts reveals that anti-bacterial, anti-viral, anti-inflammatory, anti-obesity, anti-fibrotic, anti-diabetic and xanthine oxidase inhibition, diuretic, decongestant activities and roots are applied for treating mouth ulcers. In addition to that bark is used to relieve the abdominal pains. The species also has essential metals like sodium, potassium, iron, zinc and magnesium which were clinically proved. Thus these reviews will emphasis on the phyto-constituents and biological activities of the plant which will heal and cure mankind for healthy living.



Product Name	Banaba Leaf Extract
Assay (On dried basis)	Corosolic acid - 1% to 20% w/w by HPLC
Description	Light dark greenish-brown powder
Botanical Name	<i>Lagerstroemia sepeciosa</i>
Common Name	Banaba
Plant Part used for Extraction	Leaves
Sotrage	Cool, Dark, & Dry place

APPLICATION

Banaba is an herbal remedy extracted from the leaves of *Lagerstroemia speciosa*, a tree native to Southeast Asia. Long used in folk medicine, banaba is available in supplement form. Proponents claim that banaba can promote weight loss and treat a wide range of health problems.

Rich in corosolic acid (a substance found to possess blood - sugar - lowering, antioxidant, and anti-inflammatory properties), banaba also contains ellagitannins, a class of compounds with antioxidant effects.

Banaba is a natural remedy for the following conditions:



Anti Diabetic Activity and Hypoglycemic Activity: Custer C. Deocaris *et al.*, 2005 performed hypoglycemic activity of irradiated 80% ethanol extract of banaba leaves was tested on alloxan treated diabetic mice and they found significant decline in blood glucose levels within 1.5 hours.^[1]



Anti - Obesity Activity: Suzuki *et al.*, 1999 studied the anti-obesity of 5% hot water extract from banaba leaves and results suggest that banaba had a beneficial effect on obese female KK-AY mice.^[2]



Anti-inflammatory Activity: Priya TT *et al.*, 2008 worked on the anti-inflammatory activity of ethyl acetate and ethanol leaf extract of *Lagerstroemia Speciosa*. It had been examined using the carrageenan-induced acute inflammation and formalin-induced chronic paw oedema assays. Ethyl acetate extracts significantly reduced inflammation.^[3]



Anti-oxidant Activity: Fatema Nasrin *et al.*, 2012 studied the anti-oxidant activity of methanolic extract of *Lagerstroemia* leaves and barks for their antioxidant activity and found significant anti-oxidant activity.^[4]



Antiviral Activity: Nutan *et al.*, 2013 screened anti-HIV activity of aqueous and 50% ethanol extracts of leaves and stems of banaba by *in vivo* reporter gene based assays and found the novel anti-HIV activity of banaba because of presence of Gallic acid and ellagic acid through the inhibition of reverse transcriptase and HIV protease.^[5]

References:

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4. Fatema N, Ahmad S, Kamrunnahar: Evaluation of anti - microbial, antioxidant and cytotoxic activities of Methanolic extracts of *Lagerstroemia speciosa* leaves and barks, *Journal of applied pharmaceutical sciences* 2012; 2(10): 142-147.
5. Suri S, Rawat AKS, Srivastava SK, Tuli R, Malhotra S and Gupta SK: Ellagic acid and gallic acid from *Lagerstroemia speciosa* inhibit HIV - 1 infection through inhibition of HIV - 1 protease and reverse transcriptase activity, *Indian journal medical research* 2013; 137(3): 540-548.



Sunpure Extracts
Private Limited

L-99 A, Dilshad Garden, Delhi - 110095, INDIA

Tel: +91-11-22126629, +91-9205515570

Email: info@sunpure.co.in

Web: <http://www.sunpure.co.in>

Manufacturing Base:

E-25, Industrial Area, Sikandrabad, U.P. - 203205, INDIA

