



# Cardioprotective Effect of *Banaba* on Myocardial Ischemia/Reperfusion Injury in Rats

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## Abstract

The ethanol extract of *Banaba* (*Lagerstroemia speciosa* L.) leaves, was investigated for their effects on ischemia/reperfusion (I/R) injury induced by occlusion of the left descending coronary artery (LCA) for 1 h, followed by re-opening again for 1 h. *Banaba* ethanol extract (100 mg/kg) intraperitoneally (i.p.) was administered 30 min after induction of ischemia. During I/R period, the hemodynamics and ECG parameters were measured. Oxidative stress markers like reduced glutathione (GSH), Superoxide dismutase (SOD), malondialdehyde (MDA), activities of myeloperoxidase (MPO), creatine kinase (CK) and myocardial infarct area were significantly ( $P < 0.05$ ) reduced in Wistar rats after *Banaba* treatment. The apoptotic activity and histological observations were influenced by *Banaba*. The cardioprotective effect of *Banaba* could be attributed to its ability to improve the antioxidant mechanism, anti-inflammatory and anti-apoptotic activity in ischemic animals.

**Keywords:** Antioxidant, Anti-inflammatory and Anti-apoptotic, *Lagerstroemia speciosa* L.