

# THROMBIN-INHIBITORY ACTIVITY OF AQUEOUS LEAF AND FLOWER EXTRACT OF CATHARANTHUS ROSEUS

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## ABSTRACT

**Objective:** To investigate the thrombin inhibitory activity of aqueous extracts of leaf and flower of *Catharanthus roseus*.

**Methods:** Thrombin-inhibitory activity was evaluated by thrombin inhibition assay *in vitro* and thrombin generation assay on rat plasma.

**Results:** We observed that both crude extract of leaf and flower of *C. roseus* inhibited thrombin activity and thrombin generation significantly from that of vehicle control and heparin. Further, we evaluated the thrombin inhibitory activity of Vinblastin sulfate and found that Vinblastin sulfate inhibits thrombin activity suggesting that thrombin inhibitory activity of crude extract of leaf and flower of *C.roseus* may be through Vinblastin sulfate.

**Conclusions:** The active principles of crude extract of leaf and flower of *C. roseus* may further help in the treatment of cancer-associated thrombosis.

**KEYWORDS:** *Catharanthus roseus*, Thrombin, Thrombosis, Vinblastin