

## **Cinnamomum iners as Mitogen-Activated Protein Kinase Kinase (MKK1) inhibitor**

### **Abstract**

Novel inhibitors targeting signal transductions have emerged for cancer therapies. Cinnamomum species have been reported to inhibit the proliferation of various cell lines. In this study, the methanol and acetone extracts of Cinnamomum iner's leaves demonstrated significant anti-kinase activity against MKK1 in the signal transduction pathway at quantity as low as 1 and 6 mg respectively. Both of the extracts were found to contain polyphenol and flavonoid with potent anti-oxidation activity against DPPH free radicals ( $IC_{50}=0.2$  and  $0.3$  mg/mL respectively). In conclusion, the extracts may serve as potential MKK1 inhibitors which can be developed into anti-cancer drug.