**Product Name**: Kaerophyllin  
**Catalog Number**: TN4374  
**CAS Number**: 75590-33-9  
**Molecular Formula**: C21H20O6  
**Molecular Weight**: 368.40

**Description**: Kaerophyllin has anti-fibrotic effects, it can protect the rat liver from TAA-caused injury and fibrogenesis by suppressing hepatic inflammation and inhibiting HSC activation, possibly through upregulation of PPAR-γ expression. Kaerophyllin inhibits AB-induced LX-2 activation and migration with downregulation of Akt/ERK phosphorylations and NF-κB activity.

**Storage**: 2 years -80°C in solvent; 3 years -20°C powder;

<table>
<thead>
<tr>
<th>Receptor (IC50)</th>
<th>Akt</th>
<th>ERK</th>
<th>IL Receptor</th>
<th>NF-κB</th>
<th>PPAR</th>
<th>TNF-α</th>
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</table>

**In vitro Activity**

Hepatic stellate cells (HSCs), the key cell type for hepatic fibrosis, become activated and profibrogenic in the presence of hepatocyte apoptotic bodies (ABs). Bupleurum scorzonerifolium (BS), a widely used traditional Chinese herb for liver diseases, was fractionated, and the inhibitory effects of BS extracts on AB-induced HSC migration were screened. The activity-guided fractionation led to a lignan, Kaerophyllin. In this study, the anti-fibrotic effects of Kaerophyllin were studied in the presence of ABs. METHODS AND RESULTS: LX-2 cells phagocytosing ultraviolet (UV)-induced HepG2 ABs were investigated by confocal microscopy and flow cytometry. AB-induced HSC activation was evaluated by immunoblotting and real-time PCR analyses. HSC migration was measured by wound-healing assays. HepG2 ABs induced LX-2 activation, with the production of collagen I and α-smooth muscle actin, upregulated profibrogenic gene transcriptions and increased NF-κB activity, cell migration and phagocytosis. Kaerophyllin from BS antagonized AB-induced HSC migration and activation. CONCLUSIONS: Kaerophyllin inhibited AB-induced LX-2 activation and migration with downregulation of Akt/ERK phosphorylations and NF-κB activity. Our study suggests a novel platform for screening anti-fibrotic compounds with ABs.

**Reference**


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