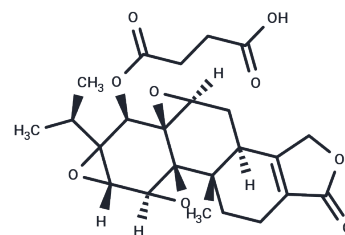


Omtriptolide

Chemical Properties

CAS No. : 195883-06-8
Formula: C₂₄H₂₈O₉
Molecular Weight: 460.479
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Omtriptolide, triptolide purified from the Chinese herb, is a water-soluble derivative prodrug.
Targets(IC50)	ERK
In vitro	Triptolide is a traditional Chinese medicine. It also has anti-inflammatory, antiproliferative, and proapoptotic properties[1].
In vivo	Omtriptolide effectively reduces fibrosis in groups treated with bleomycin, either when administered concurrently or five days post-treatment. It significantly diminishes in vivo expansion of both CD4+Vbeta3+ and CD8+Vbeta3+ T cells (alloreactive T cells in this context) in the spleen by 64.09% and 34.02%, respectively, particularly during the logarithmic expansion phase (day 3 post-transplantation). Additionally, it notably decreases the population of myofibroblasts in the bleomycin-treated cohorts. In a cisplatin-induced acute kidney injury (AKI) mouse model, Omtriptolide substantially lowers blood urea nitrogen (BUN), serum creatinine levels, and acute tubular necrosis (ATN) scores, while slightly increasing the tubular apoptosis score, indicating a protective role against AKI. This protection correlates with a reduction in p-ERK activity, operating independently of MKP-1 and pro-inflammatory cytokines[1]. Furthermore, Omtriptolide alleviates airway obliteration and curtails the aggregation of inflammatory cells, suggesting potential preventive or therapeutic applications for obliterative airway diseases post-lung transplantation, as demonstrated in a mouse heterotopic tracheal allograft model[2][3][4].

A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1716 mL	10.8582 mL	21.7165 mL
5 mM	0.4343 mL	2.1716 mL	4.3433 mL
10 mM	0.2172 mL	1.0858 mL	2.1716 mL
50 mM	0.0434 mL	0.2172 mL	0.4343 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Kim HJ, et al. The water-soluble triptolide derivative PG490-88 protects against cisplatin-induced acute kidney injury. J Pharmacol Exp Ther. 2014 Jun;349(3):518-25.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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