

Isoangustone A

Chemical Properties

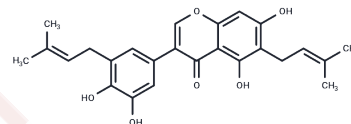
CAS No. : 129280-34-8

Formula: C₂₅H₂₆O₆

Molecular Weight: 422.47

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Isoangustone A is a natural product that inhibits PI3K, MKK4, and MKK7 through ATP competition, suppresses the expression of G1 phase regulatory proteins, inhibits the phosphorylation of Akt, GSK-3 β , and JNK1/2, and inhibits the proliferation of human melanoma cells and tumour growth in xenograft mouse models.
Targets(IC50)	Apoptosis,MAPK,Autophagy,JNK,PI3K
In vitro	<p>Method: A cell proliferation assay was performed using the SK-MEL-28 cell line. Cells were treated with Isoangustone A at concentrations of 10 μM and 20 μM for 48 and 72 hours to evaluate its effect on cell proliferation.</p> <p>Result: Isoangustone A significantly inhibited the proliferation of SK-MEL-28 cells in a dose- and time-dependent manner. [1]</p>
In vivo	<p>Method: A SK-MEL-28 xenograft tumor model was established using male Balb/c nude (nu/nu) mice. Mice were administered Isoangustone A via daily intraperitoneal injection at doses of 2 or 10 mg/kg for 35 consecutive days to evaluate its antitumor effects.</p> <p>Result: Isoangustone A significantly reduced tumor weight compared to the control group. It also markedly decreased the expression of proliferating cell nuclear antigen (PCNA) and reduced the phosphorylation levels of Akt. [1]</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.367 mL	11.8352 mL	23.6703 mL
5 mM	0.4734 mL	2.367 mL	4.7341 mL
10 mM	0.2367 mL	1.1835 mL	2.367 mL
50 mM	0.0473 mL	0.2367 mL	0.4734 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Song NR, et al. Isoangustone A, a novel licorice compound, inhibits cell proliferation by targeting PI3K, MKK4, and MKK7 in human melanoma. *Cancer Prev Res (Phila)*. 2013 Dec;6(12):1293-303.

Tang S, et al. Isoangustone A induces autophagic cell death in colorectal cancer cells by activating AMPK signaling. *Fitoterapia*. 2021 Jul;152:104935.

Li J, et al. Isoangustone A suppresses mesangial fibrosis and inflammation in human renal mesangial cells. *Exp Biol Med (Maywood)*. 2011 Apr 1;236(4):435-44.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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