

Isofistularin-3

Chemical Properties

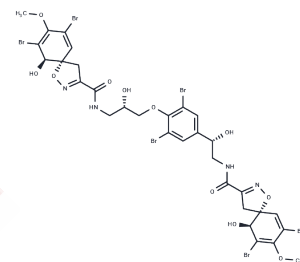
CAS No. :

Formula: C₃₁H₃₀Br₆N₄O₁₁

Molecular Weight: 1114.01

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	Isofistularin-3, a direct DNA-competitive DNMT1 inhibitor with an IC ₅₀ of 13.5 μM, functions as a DNA demethylating agent, leading to cell cycle arrest and increased sensitivity to TRAIL in cancer cells. Additionally, it can be employed as an ADC cytotoxin.
Targets(IC ₅₀)	Apoptosis, Autophagy, ADC Cytotoxin, DNA Methyltransferase
In vitro	Isofistularin-3 (72 hours) inhibits a broader panel of cancer cell lines proliferation, with the GI ₅₀ s ranging from 7.3-14.8 μM. Isofistularin-3 induces morphological changes and autophagy in RAJI cells. Isofistularin-3 induces caspase-dependent and -independent cell death. Isofistularin-3 sensitizes lymphoma cells to TRAIL-induced apoptosis. Isofistularin-3 (1-50 μM; 24-72 hours) shows a marked reduction of cell proliferation. Isofistularin-3 (5-50 μM; 24 hours) increases arrests cancer cells in G ₀ /G ₁ cell cycle phase. Isofistularin-3 (25 μM; 72 hours) increases AHR expression. Isofistularin-3 induces AHR promoter demethylation.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8977 mL	4.4883 mL	8.9766 mL
5 mM	0.1795 mL	0.8977 mL	1.7953 mL
10 mM	0.0898 mL	0.4488 mL	0.8977 mL
50 mM	0.018 mL	0.0898 mL	0.1795 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

Floean C, et al. Discovery and characterization of Isofistularin-3, a marine brominated alkaloid, as a new DNA demethylating agent inducing cell cycle arrest and sensitization to TRAIL in cancer cells. *Oncotarget*. 2016 Apr 26;7 (17):24027-49.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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