

Fosbretabulin (disodium)

Catalog No: tcsc1484



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



Specifications

CAS No:

168555-66-6

Formula:

$C_{18}H_{19}Na_2O_8P$

Pathway:

Cell Cycle/DNA Damage;Cytoskeleton

Target:

Microtubule/Tubulin;Microtubule/Tubulin

Purity / Grade:

>98%

Solubility:

DMSO :

Alternative Names:

CA 4DP;CA 4P;Combretastatin A4 disodium phosphate

Observed Molecular Weight:

440.29

Product Description

Fosbretabulin disodium (CA 4DP; CA 4P) is a microtubule destabilizing drug, a type of vascular-targeting agent, a drug designed to damage the vasculature (blood vessels) of cancer tumors causing central necrosis.

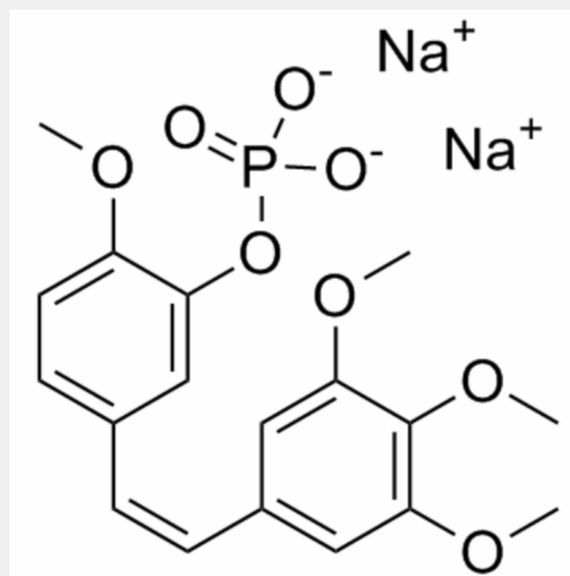
IC50 Value: 4 nM [1]

Target: microtubule

in vitro: Cytotoxic IC(50) values of CA-4 in human bladder cancer cells were below 4 nM. Analyses of cell-cycle distribution showed CA-4 obviously induced G(2)-M phase arrest with sub-G(1) formation. The analyses of apoptosis showed that CA-4 induced caspase-3 activation and decreased BubR1 and Bub3 in cancer cells [1]. The enhanced apoptosis induced by dasatinib plus CA-4 was accompanied by a greater extent of mitochondrial depolarization, caspase-3 activation and PARP cleavage in HO-8910 cells. Furthermore, elevated expression of Mcl-1 led to a reduced apoptosis induced by dasatinib plus CA-4, highlighting that downregulated Mcl-1 was necessary for the potentiating effect of dasatinib to CA-4-triggered apoptosis [2].

in vivo: The increased anticancer efficacy of dasatinib combined with CA-4 was further validated in a human HO-8910 ovarian cancer xenograft model in nude mice [2]. There was a significant, concentration dependent increase in mean arterial blood pressure with a maximum increase of about 60% of the baseline MAP at 30 mg/kg of CA4P compared to the saline control. However, there was no significant increase in the cardiac troponin I level after CA4P injection [3].

Clinical trial: A phase II trial of fosbretabulin in advanced anaplastic thyroid carcinoma and correlation of baseline serum-soluble intracellular adhesion molecule-1 with outcome [4].



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