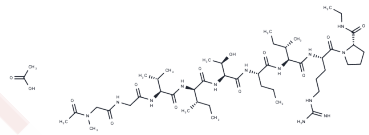
Data Sheet (Cat.No.T24997)

TargetMol

ABT-510 acetate

Chemical Properties



CAS No. : 442526-87-6

Formula: C48H87N13O13

Molecular Weight: 1054.28

Storage: Keep away from moisture
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	ABT-510 acetate is an endogenous anti-angiogenic TSP peptide inhibitor, a thrombospondin analog, with anti-inflammatory, anti-cancer and anti-angiogenic activity that induces apoptosis and inhibits ovarian tumor growth in an orthotopic, syngeneic model of epithelial ovarian cancer.ABT-510 acetate reduces angiogenesis and inflammatory responses in a mouse model of inflammatory bowel disease. ABT-510 acetate reduces angiogenesis and inflammation in mouse models of inflammatory bowel disease (IBD) and can be used in cancer research, particularly in epithelial ovarian cancer, as well as in inflammatory bowel disease (IBD).
Targets(IC50)	Apoptosis
In vitro	ABT-510 acetate (1, 5, 10, 20, 50 nM; 24 h) induces apoptosis in ID 8 cells and increases apoptosis incidence in human epithelial cancer cell lines SKOV3, OVCAR3, and CAOV3.[1] ABT-510 acetate (0-10 μM; 7 days) inhibits NO-stimulated growth and invasion of vascular cells into the extracellular matrix and blocks tumor-driven vascular cell growth, NO-driven cGMP flux, and CD36-mediated fatty acid uptake.[3]
In vivo	ABT-510 acetate (100 mg/kg; i.p.; once daily for 90 days) induces apoptosis in vivo and significantly reduces epithelial ovarian tumor size, ascites volume, and secondary lesion spread in mice.[1] ABT-510 acetate (60 mg/kg; subcutaneous osmotic minipump; once daily for 7 days) reduces angiogenesis and inflammation in a mouse model of inflammatory bowel disease.[2]

Solubility Information

Solubility	H2O: 90 mg/mL (85.37 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9485 mL	4.7426 mL	9.4851 mL
5 mM	0.1897 mL	0.9485 mL	1.897 mL
10 mM	0.0949 mL	0.4743 mL	0.9485 mL
50 mM	0.019 mL	0.0949 mL	0.1897 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

Greenaway J, et al. ABT-510 induces tumor cell apoptosis and inhibits ovarian tumor growth in an orthotopic, syngeneic model of epithelial ovarian cancer. Mol Cancer Ther. 2009;8(1):64-74.
Punekar S, et al. Thrombospondin 1 and its mimetic peptide ABT-510 decrease angiogenesis and inflammation in a murine model of inflammatory bowel disease. Pathobiology. 2008;75(1):9-21.
Isenberg JS, et al. Differential effects of ABT-510 and a CD36-binding peptide derived from the type 1 repeats of thrombospondin-1 on fatty acid uptake, nitric oxide signaling, and caspase activation in vascular cells. Biochem Pharmacol. 2008;75(4):875-882.
Nabors LB, et al. A phase 1 trial of ABT-510 concurrent with standard chemoradiation for patients with newly diagnosed glioblastoma. Arch Neurol. 2010;67(3):313-319.

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