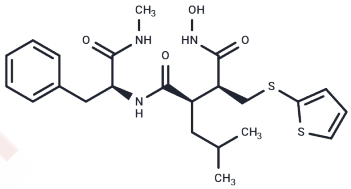
Data Sheet (Cat.No.T6011)

TargetMol

Batimastat

Chemical Properties



CAS No. : 130370-60-4

Formula: C23H31N3O4S2

Molecular Weight: 477.64

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	Batimastat (BB94) (BB-94) is an effective, broad-spectrum matrix metalloprotease (MMP) inhibitor. Batimastat induces extracellular matrix degradation and inhibits angiogenesis, tumor growth and invasion, and metastasis.
Targets(IC50)	MMP
In vitro	Batimastat (BB-94) is a potent, broad spectrum matrix metalloprotease (MMP) inhibitor for MMP-1, MMP-2, MMP-9, MMP-7 and MMP-3 with IC50 of 3 nM, 4 nM, 4 nM, 6 nM and 20 nM, respectively. [1]Batimastat exhibits an unexpected binding geometry, with the thiophene ring deeply inserted into the primary specificity site. [2]
In vivo	Batimastat can inhibit metastatic spread and growth of B16-BL6 murine melanoma. [1] In an orthotopic colon tumor model in mice, timastat treatment results in inhibition of primary tumor growth (by 50%), local/regional spread(from 67% to 35%), and distant metastasis(from 30% to 10%).[3]Batimastat reduces in vivo growth of experimental hemangiomas, most probably by blocking endothelial cell recruitment by the transformed cells or by interfering with cell organization in vascular structures. [4]
Kinase Assay	For luciferase assay, FG-9307 cells are transfected with the firefly NF-κB-specific luciferase reporter vector pNFκB-Met-Luc2. Transfection efficiency is monitored by co-transfection with the pSEAP2 control vector, which constitutively expresses the human secreted enhanced alkaline phosphatase (SEAP). Then the cells are treated with Resiquimod (R848, 1?μg/mL), CQ (10?μM), CQ plus R848 or PBS and incubated at 22°C for 24?h. The culture medium of the transfectants is then analyzed for luciferase activity and SEAP activity using Luciferase Assay Kit and the Great EscAPe? SEAP Chemiluminescence Detection Kit, respectively. The assay is performed three times.

Solubility Information

Solubility	Ethanol: 2.5 mg/mL (5.23 mM),Sonication is recommended. DMSO: 50 mg/mL (104.68 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0936 mL	10.4681 mL	20.9363 mL
5 mM	0.4187 mL	2.0936 mL	4.1873 mL
10 mM	0.2094 mL	1.0468 mL	2.0936 mL
50 mM	0.0419 mL	0.2094 mL	0.4187 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

Chirivi RG, et al. Int J Cancer, 1994, 58(3), 460-464.
Liu Y, Wei H, Tang J, et al. Dysfunction of pulmonary epithelial tight junction induced by silicon dioxide nanoparticles via the ROS/ERK pathway and protein degradation. Chemosphere. 2020, 255: 126954.
Qiu L, Xu H, Sui B, et al.Elucidating the Functional Mechanism of PTK7 in Cancer Development through Spatial Assembly Analysis Using Super Resolution Imaging.Analytical Chemistry.2024
Botos I, et al. PNAS, 1996, 93(7), 2749-2754.
Wang X, et al. Cancer Res, 1994, 54(17), 4726-4728.
Taraboletti G, et al. J Natl Cancer Inst, 1995, 87(4), 293-298.
Liu Y, Wei H, Tang J, et al. Dysfunction of pulmonary epithelial tight junction induced by silicon dioxide nanoparticles via the ROS/ERK pathway and protein degradation[J]. Chemosphere. 2020, 255: 126954.