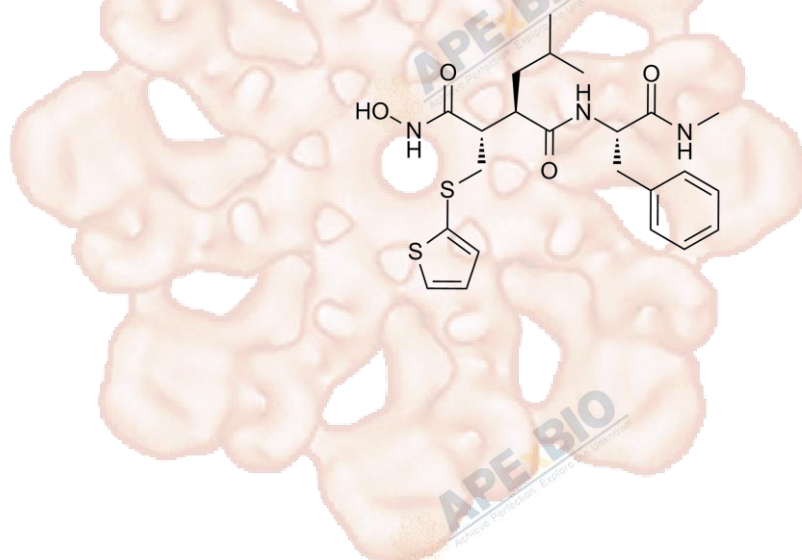


Product Data Sheet

Batimastat (BB-94)

Cat. No.:	A2577
CAS No.:	130370-60-4
Formula:	C ₂₃ H ₃₁ N ₃ O ₄ S ₂
M.Wt:	477.64
Synonyms:	Batimastat, BB-94
Target:	Proteases
Pathway:	MMP
Storage:	Store at 4°C



Solvent & Solubility

≥23.88 mg/mL in DMSO; insoluble in H₂O; insoluble in EtOH

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		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

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

MMP inhibitor

IC₅₀ & Target

3 nM (MMP-1), 4 nM (MMP-2), 4 nM (MMP-9), 6 nM (MMP-7), 20 nM (MMP-3)

In Vitro

Cell Viability Assay

Cell Line:	C170HM2 and AP5LV cell lines
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	96 h; 3.0 µg/ml

	Applications:	In vitro proliferation in the presence of batimastat was assessed by the MTT absorbance assay. The effect of batimastat on the in vitro growth of C170HM2 and AP5LV in both serum-free and serum-containing culture media was determined three times. Batimastat had no significant effect on the growth of either cell line.
In Vivo	Animal experiment	
	Animal models:	Orthotopic transplant model of human colon cancer in nude mice
	Dosage form:	30 mg/kg; i.p.
	Applications:	Treatment with BB-94 caused a significant reduction in the median weight of the primary tumor from 293 mg (range, 1141 to 124 mg) in the control group to 144 mg (range, 424 to 38 mg) in the BB-94 treated group ($P < 0.001$) and resulted in a marked reduction in the incidence of tumor invasion of adjacent tissue, from 12 of 18 mice in the control group (67%) to 7 of 20 mice in the BB-94 treated group (35%).
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Karpova D, Rettig MP, et al. "Targeting VLA4 integrin and CXCR2 mobilizes serially repopulating hematopoietic stem cells." J Clin Invest. 2019 May 14;130:2745-2759.PMID:31085833
2. Clarke C, Gallagher C, et al. "Transcriptomic analysis of IgG4 Fc-fusion protein degradation in a panel of clonally-derived CHO cell lines using RNASeq." Biotechnol Bioeng. 2019 Jun;116(6):1556-1562.PMID:30802296
3. Lin CC, Kurashige M, et al. "A cleavage product of Polycystin-1 is a mitochondrial matrix protein that affects mitochondria morphology and function when heterologously expressed." Sci Rep. 2018 Feb 9;8(1):2743.PMID:29426897
4. Lertudomphonwanit C, Mourya R, et al. "Large-scale proteomics identifies MMP-7 as a sentinel of epithelial injury and of biliary atresia." Sci Transl Med. 2017 Nov 22;9(417).PMID:29167395
5. Kidacki M, Lehman HL, et al. "p120-Catenin Downregulation and PIK3CA Mutations Cooperate to Induce Invasion through MMP1 in HNSCC." Mol Cancer Res. 2017 Oct;15(10):1398-1409.PMID:28637905

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References

- [1] Watson S A, Morris T M, Robinson G, et al. Inhibition of organ invasion by the matrix metalloproteinase inhibitor batimastat (BB-94) in two human colon carcinoma metastasis models[J]. Cancer research, 1995, 55(16): 3629-3633.
- [2] Wang X, Fu X, Brown P D, et al. Matrix metalloproteinase inhibitor BB-94 (batimastat) inhibits human colon tumor growth and spread in a patient-like orthotopic model in nude mice[J]. Cancer research, 1994, 54(17): 4726-4728.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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