

## Batimastat

**Catalog No: tcsc1655** 

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Specifications

CAS No:

130370-60-4

Formula:

 $C_{23}H_{31}N_{3}O_{4}S_{2}$ 

**Pathway:** Metabolic Enzyme/Protease

**Target:** 

MMP

Purity / Grade:

## Solubility:

10 mM in DMSO

Alternative Names:

BB94

## **Observed Molecular Weight:**

477.64

## **Product Description**

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Batimastat is a potent broad spectrum **MMP** inhibitor with **IC**<sub>50</sub> of 3, 4, 4, 6, and 20 nM for **MMP-1**, **MMP-2**, **MMP-9**, **MMP-7** and **MMP-3**, respectively.

IC50 & Target: IC50: 3 nM (MMP-1), 4 nM (MMP-2), 4 nM (MMP-9), 6 nM (MMP-7), 20 nM (MMP-3)<sup>[1]</sup>

*In Vitro:* Batimastat (BB-94) is a potent matrix metalloproteinase inhibitor, exhibits an unexpected mode of binding. Batimastat inhibits gelatinases A and B with  $IC_{50}$  values of 4 nM and 10 nM, respectively. The  $IC_{50}$  with the structurally similar collagenase Ht-d is 6 nM, which is comparable with values for MMP-1 (3 nM), MMP-8 (10 nM), and MMP-3 (20 nM)<sup>[2]</sup>. CD30 shedding from the cell line Karpas299 can effectively be blocked by the hydroxamic acidbased metalloproteinase inhibitor Batimastat (BB-94,  $IC_{50}$ =230 nM)<sup>[3]</sup>.

*In Vivo:* Intraperitoneal administration of Batimastat (BB-94) effectively blocks growth of human ovarian carcinoma xenografts and murine melanoma metastasis and delays the growth of primary tumors in an orthotopic model of human breast cancer without cytotoxicity and without affecting mRNA levels<sup>[2]</sup>. Batimastat (BB-94) is a synthetic matrix metalloproteinase inhibitor that has shown antineoplastic and antiangiogenic activity in various tumor models. Treatment with Batimastat (60 mg/kg i.p. every other day, for a total of eight injections) concomitantly with Cisplatin (4 mg/kg i.v., every 7 days for a total of three injections) completely prevents growth and spread of both xenografts, and all animals are alive and healthy on day  $200^{[4]}$ . Kaplan-Meier analysis of survival (at 48 h) shows that animals treated with Batimastat (BB-94) have increased survival (95.2%) in comparison with controls (75%), and differences are almost statistically significant (p=0.064)<sup>[5]</sup>. Matrix density is analyzed in saline- or Batimastat (40 mg/kg)-pretreated animals 4 h after  $E_2$  administration, the time point at which collagen density is observed to be at its lowest after hormone treatment<sup>[6]</sup>.



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