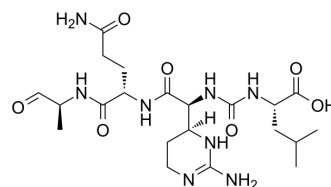


## Elastatinal

<b>Cat. No.:</b>	HY-100397
<b>CAS No.:</b>	51798-45-9
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>36</sub> N <sub>8</sub> O <sub>7</sub>
<b>Molecular Weight:</b>	512.56
<b>Target:</b>	Elastase
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Elastatinal is a potent and competitive inhibitor of elastase, with a K <sub>i</sub> of 0.21 μM. Elastatinal more potently inhibits pancreatic elastase versus leucocyte elastase. Elastatinal shows no activity on human leucocyte chymotrypsin-like protease [1][2][3][4].
<b>In Vitro</b>	Elastatinal inhibits the binding of acetyl-alanyl-alanyl-alanine p-nitroanilide and acetyl-alanyl-alanyl-alanine methyl ester to elastase, with K <sub>i</sub> s of 0.24 μM and 0.21 μM, respectively <sup>[1]</sup> . Elastatinal (5-20 μM) suppresses the enhanced osteoclast differentiation by neutrophils <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Umezawa H. Structures and activities of protease inhibitors of microbial origin. *Methods Enzymol.* 1976;45:678-95.
- [2]. Feinstein G, et, al. The inhibition of human leucocyte elastase and chymotrypsin-like protease by elastatinal and chymostatin. *Biochim Biophys Acta.* 1976 May 13;429(3):925-32.
- [3]. Sugisaki R, et, al. Possible involvement of elastase in enhanced osteoclast differentiation by neutrophils through degradation of osteoprotegerin. *Bone.* 2020 Mar;132:115216.
- [4]. Vidhya R, et, al. Anti-inflammatory effects of troxerutin are mediated through elastase inhibition. *Immunopharmacol Immunotoxicol.* 2020 Oct;42(5):423-435.

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA