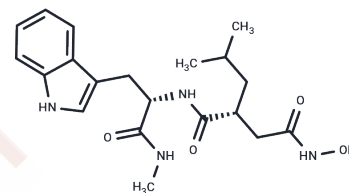


## Ilomastat

## Chemical Properties

CAS No. :	142880-36-2
Formula:	C <sub>20</sub> H <sub>28</sub> N <sub>4</sub> O <sub>4</sub>
Molecular Weight:	388.46
Storage:	Keep away from moisture, Store under nitrogen Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Ilomastat (GM6001) (GM6001, Galardin) is a broad spectrum matrix metalloprotease (MMP) inhibitor.
Targets(IC50)	MMP
In vivo	Topical application of GM6001 (400 µg/ml) prevents corneal ulceration after severe alkali injury. [3] In rabbit model after stenting, GM6001 significantly inhibits intimal hyperplasia and intimal collagen content, and it increases lumen area in stented arteries without effects on proliferation rates. [4]
Kinase Assay	Collagenase assay uses the synthetic thiol ester substrate Ac-Pro-Leu-Gly-SCH(i-Bu)CO-Leu-Gly-OEt at pH 6.5. The collagenase concentration is 1-2 nM, and the substrate concentrations are from 0.1 to 0.7 nM. Km is found to vary between 1.5 and 4 mM.

## Solubility Information

Solubility	DMSO: 83.32 mg/mL (214.49 mM) ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (8.5 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5743 mL	12.8713 mL	25.7427 mL
5 mM	0.5149 mL	2.5743 mL	5.1485 mL
10 mM	0.2574 mL	1.2871 mL	2.5743 mL
50 mM	0.0515 mL	0.2574 mL	0.5149 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

- Grobelny D, et al. *Biochemistry*, 1992, 31(31), 7152-714.
- Sun Y, Lyu B, Yang C, et al. An enzyme-responsive and transformable PD-L1 blocking peptide-photosensitizer conjugate enables efficient photothermal immunotherapy for breast cancer. *Bioactive Materials*. 2023, 22: 47-59.
- Yin L, Sun H, Zhang H, et al. Quantitatively Visualizing Tumor-related Protease Activity In Vivo Using A Ratiometric Photoacoustic Probe. *Journal of the American Chemical Society*. 2019 Feb 20;141(7):3265-3273.
- Leppert D, et al. *J Immunol*, 1995, 154(9), 4379-4389.
- Yin L, Sun H, Zhao M, et al. Rational Design and Synthesis of a Metalloproteinase-Activatable Probe for Dual-Modality Imaging of Metastatic Lymph Nodes in Vivo. *The Journal of Organic Chemistry*. 2019 May 17;84(10):6126-6133
- Schultz GS, et al. *Invest Ophthalmol Vis Sci*, 1992, 33(12) 3325-3331.
- Li C, et al. *J Am Coll Cardiol*, 2002, 39(11), 1852-1858.
- Xia J, Sun S, Wu X, et al. Enzyme-activated anchoring of peptide probes on plasma membrane for selectively lighting up target cells. *Analyst*. 2020
- Luan F, Yu Z, Yin L, et al. Accurate detection of matrix metalloproteinase-2 activity in clinical gastric cancer tissues using a fluorescent probe. *Analytical Methods*. 2019, 11(11): 1516-1521
- Luan F, Yu Z, Yin L, et al. Accurate detection of matrix metalloproteinase-2 activity in clinical gastric cancer tissues using a fluorescent probe[J]. *Analytical Methods*. 2019, 11(11): 1516-1521.
- Xia J, Sun S, Wu X, et al. Enzyme-activated anchoring of peptide probes onto plasma membranes for selectively lighting up target cells[J]. *Analyst*. 2020
- Cheng Z, Jin Y, Li J, et al. Fibronectin-targeting and metalloproteinase-activatable smart imaging probe for fluorescence imaging and image-guided surgery of breast cancer. *Journal of Nanobiotechnology*. 2023, 21(1): 1-16.
- Hydrophobicity causes anomalous migration of cystine/glutamate antiporter SLC7A11 in SDS-PAGE with low acrylamide concentration
- Xia J, Sun S, Wu X, et al. Enzyme-activated anchorage of peptide probes on plasma membrane for selectively lighting up target cells. *Analyst*. 2020
- Yin L, Sun H, Zhao M, et al. Rational Design and Synthesis of a Metalloproteinase-Activatable Probe for Dual-Modality Imaging of Metastatic Lymph Nodes in Vivo[J]. *The Journal of organic chemistry*. 2019 May 17;84(10): 6126-6133.
- Yin L, Sun H, Zhang H, et al. Quantitatively Visualizing Tumor-related Protease Activity In Vivo Using A Ratiometric Photoacoustic Probe[J]. *Journal of the American Chemical Society*. 2019 Feb 20;141(7):3265-3273.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481