# **PRODUCT** INFORMATION



## **Prinomastat**

Item No. 37699

CAS Registry No.:	192329-42-3	
Formal Name:	(3S)-N-hydroxy-2,2-dimethyl-4-	
	[[4-(4-pyridinyloxy)phenyl]sulfonyl]-	0 
	3-thiomorpholinecarboxamide	OH
Synonyms:	AG-3340, KB-R9896	
MF:	C <sub>18</sub> H <sub>21</sub> N <sub>3</sub> O <sub>5</sub> S <sub>2</sub>	L N P H
FW:	423.5	Š,
Purity:	≥95%	
UV/Vis.:	λ <sub>max</sub> : 229, 242 nm	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

#### Laboratory Procedures

Prinomastat is supplied as a solid. A stock solution may be made by dissolving the prinomastat in the solvent of choice, which should be purged with an inert gas. Prinomastat is soluble in DMSO.

#### Description

Prinomastat is an inhibitor of matrix metalloproteinase-2 (MMP-2), MMP-3, MMP-9, MMP-13, and MMP-14 ( $IC_{50}$ s = 0.05, 0.3, 0.26, 0.03, and 0.33 nM, respectively).<sup>1</sup> It is selective for these MMPs over MMP-1 and MMP-7 (IC50s = 8.3 and 54 nM, respectively). Prinomastat (50 mg/kg) reduces tumor growth and inhibits the formation of lung metastases in a murine Lewis lung carcinoma model. It also reduces the incidence of kidney, but not brain, metastasis and tumor microvessel density in an NCI H460 lung cancer orthotopic mouse model when administered at a dose of 100 mg/kg.<sup>2</sup> Prinomastat reduces bronchoalveolar lavage fluid (BALF) levels of TNF- $\alpha$  and pulmonary edema in a rat model of ventilator-induced lung injury.<sup>3</sup>

#### References

- 1. Scatena, R. Prinomastat, a hydroxamate-based matrix metalloproteinase inhibitor. A novel pharmacological approach for tissue remodelling-related diseases. Expert Opin. Investig. Drugs 9(9), 2159-2165 (2000).
- 2. Liu, J., Tsao, M.S., Pagura, M., et al. Early combined treatment with carboplatin and the MMP inhibitor, prinomastat, prolongs survival and reduces systemic metastasis in an aggressive orthotopic lung cancer model. Lung Cancer 42(3), 335-344 (2003).
- 3. Foda, H.D., Rollo, E.E., Drews, M., et al. Ventilator-induced lung injury upregulates and activates gelatinases and EMMPRIN: Attenuation by the synthetic matrix metalloproteinase inhibitor, Prinomastat (AG3340). Am. J. Respir. Cell Mol. Biol. 25(6), 717-724 (2001).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/10/2022

### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM