

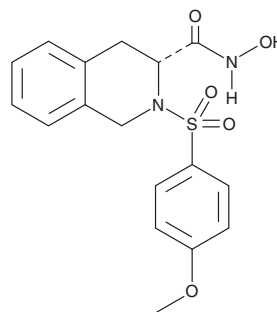
PRODUCT INFORMATION



MMP-8 Inhibitor I

Item No. 21852

CAS Registry No.: 236403-25-1
Formal Name: (3R)-1,2,3,4-tetrahydro-N-hydroxy-2-[(4-methoxyphenyl)sulfonyl]-3-isoquinolinecarboxamide
Synonym: Matrix Metalloproteinase-8 Inhibitor I
MF: C₁₇H₁₈N₂O₅S
FW: 362.4
Purity: ≥95%
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

MMP-8 Inhibitor I is supplied as a solid. A stock solution may be made by dissolving the MMP-8 inhibitor I in the solvent of choice, which should be purged with an inert gas. MMP-8 Inhibitor I is soluble in the organic solvent DMSO at a concentration of approximately 200 mg/ml.

Description

MMP-8 Inhibitor I is a selective inhibitor of the neutrophil collagenase matrix metalloproteinase-8 (MMP-8) with an IC₅₀ value of 4 nM.¹ This inhibitor does not target the activities of other MMPs *in vitro*.^{2,3} MMP-8 cleaves interstitial collagens and has exhibited activity in atherosclerotic plaques, angiogenesis, and stem cell mobilization.⁴ Additionally, MMP-8 expression is observed in normal mammary epithelial cells, whereas a loss of expression is observed in human ductal carcinoma *in situ* and the deletion of MMP-8 accelerates tumor onset in a mouse model of aggressive breast cancer.^{5,6}

References

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2. McNulty, A.L., Weinberg, J.B., and Guilak, F. Inhibition of matrix metalloproteinases enhances *in vitro* repair of the meniscus. *Clin. Orthop. Relat. Res.* **467(6)**, 1557-1567 (2009).
3. Prager, G.W., Breuss, J.M., Steurer, S., *et al.* Vascular endothelial growth factor (VEGF) induces rapid prourokinase (pro-uPA) activation on the surface of endothelial cells. *Blood* **103(3)**, 955-962 (2004).
4. Chen, Q., Jin, M., Yang, F., *et al.* Matrix metalloproteinases: Inflammatory regulators of cell behaviors in vascular formation and remodeling. *Mediators Inflamm.* 928315 (2013).
5. Decock, J., Hendricks, W., Thirkettle, S., *et al.* Pleiotropic functions of the tumor- and metastasis-suppressing matrix metalloproteinase-8 in mammary cancer in MMTV-PyMT transgenic mice. *Breast Cancer Res.* **17(1)**, 38 (2015).
6. Sarper, M., Allen, M.D., Gomm, J., *et al.* Loss of MMP-8 in ductal carcinoma *in situ* (DCIS)-associated myoepithelial cells contributes to tumour promotion through altered adhesive and proteolytic function. *Breast Cancer Res.* **19(1)**, 33 (2017).

WARNING

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

SAFETY 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.

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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