

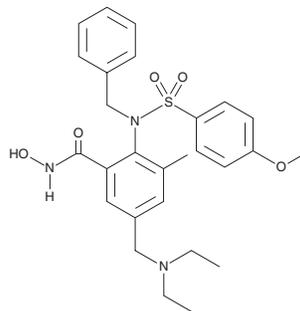
# PRODUCT INFORMATION



## MMP-9 Inhibitor I

Item No. 15942

**CAS Registry No.:** 206549-55-5  
**Formal Name:** 5-[[diethylamino)methyl]-N-hydroxy-2-[[[4-methoxyphenyl)sulfonyl](phenylmethyl)amino]-3-methyl-benzamide  
**Synonym:** Matrix Metalloproteinase-9 Inhibitor I  
**MF:** C<sub>27</sub>H<sub>33</sub>N<sub>3</sub>O<sub>5</sub>S  
**FW:** 511.6  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -80°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

MMP-9 inhibitor I is supplied as a solid. A stock solution may be made by dissolving the MMP-9 inhibitor I in the solvent of choice. MMP-9 inhibitor I is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of MMP-9 inhibitor I in these solvents is approximately 33, 25, and 20 mg/ml, respectively.

MMP-9 inhibitor I is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MMP-9 inhibitor I should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. MMP-9 inhibitor I has a solubility of approximately 0.11 mg/ml in a 1:8 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

MMP-9 inhibitor I is an inhibitor of matrix metalloproteinase-9 (MMP-9) that is selective over MMP-1 and MMP-13 (IC<sub>50</sub>s = 5, 1,050, and 113 nM, respectively).<sup>1</sup> It also decreases the activity of TNF-α converting enzyme (TACE) in a dose-dependent manner (IC<sub>50</sub> = 0.54 μM).<sup>2</sup> MMP-9 inhibitor I decreases TNF-α secretion stimulated by LPS in BV-2 microglial cells when used at concentrations of 50 and 100 μM.

### References

1. Levin, J.I., Chen, J., Du, M., *et al.* The discovery of anthranilic acid-based MMP inhibitors. Part 2: SAR of the 5-position and P11 groups. *Bioorg. Med. Chem. Lett.* **11(16)**, 2189-2192 (2001).
2. Lee, E.-J., Moon, P.-G., Baek, M.-C., *et al.* Comparison of the effects of matrix metalloproteinase inhibitors on TNF-α release from activated microglia and TNF-α converting enzyme activity. *Biomol. Ther. (Seoul)* **22(5)**, 414-419 (2014).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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