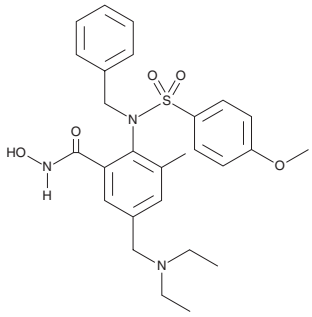
PRODUCT INFORMATION

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: $C_{27}H_{33}N_3O_5S$
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_{50}s = 5, 1,050, and 113 nM, respectively).[1] It also decreases the activity of TNF-α converting enzyme (TACE) in a dose-dependent manner (IC_{50} = 0.54 µM).[2] 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).

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