

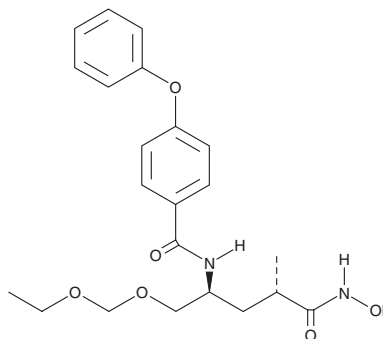
PRODUCT INFORMATION



ONO-4817

Item No. 34058

CAS Registry No.: 223472-31-9
Formal Name: N-[(1S,3S)-1-[(ethoxymethoxy)methyl]-4-(hydroxyamino)-3-methyl-4-oxobutyl]-4-phenoxy-benzamide
Synonym: MMP Inhibitor V
MF: C₂₂H₂₈N₂O₆
FW: 416.5
Purity: ≥98%
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

ONO-4817 is supplied as a solid. A stock solution may be made by dissolving the ONO-4817 in the solvent of choice, which should be purged with an inert gas. ONO-4817 is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

ONO-4817 is an inhibitor of matrix metalloproteinase-2 (MMP-2) and MMP-9 (IC₅₀s = 0.5 and 0.8 nM, respectively, for the human enzymes).¹ It is selective for MMP-2 and -9 over MMP-3 and -1 (IC₅₀s = 26 and 2,500 nM, respectively). ONO-4817 (5 µg/ml) decreases bronchoalveolar lavage fluid (BALF) neutrophil infiltration in an ex vivo rat model of pulmonary ischemia-reperfusion injury.² It inhibits intra-articular LPS-induced release of proteoglycans in knee joints in a guinea pig model of arthritis when administered at doses of 30 and 100 mg/kg.³ ONO-4817 (1% in the diet) reduces the number of lung metastases in a PC14PE6 lung cancer mouse xenograft model.⁴

References

1. Yamamoto, S., Nakatani, S., Ikura, M., *et al.* Design and synthesis of an orally active matrix metalloproteinase inhibitor. *Bioorg. Med. Chem.* **14**(18), 6383-6403 (2006).
2. Shimoyama, T., Tabuchi, N., Chung, J., *et al.* Matrix metalloproteinase inhibitor (ONO-4817) attenuates ischemia-reperfusion injury in rat lung. *Med. Sci. Monit.* **12**(2), BR51-BR56 (2006).
3. Yamada, A., Uegaki, A., and Ogawa, K. ONO-4817, an orally active matrix metalloproteinase inhibitor, prevents lipopolysaccharide-induced proteoglycan release from the joint cartilage in guinea pigs. *Inflamm. Res.* **49**(4), 144-146 (2000).
4. Shiraga, M., Yano, S., Yamamoto, A., *et al.* Organ heterogeneity of host-derived matrix metalloproteinase expression and its involvement in multiple-organ metastasis by lung cancer cell lines. *Cancer Res.* **62**(20), 5967-5973 (2002).

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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