PRODUCT INFORMATION

MMP-13 Inhibitor
Item No. 19540

CAS Registry No.: 544678-85-5
Formal Name: N4,N6-bis[4-fluoro-3-methylphenyl]methyl]-4,6-pyrimidinedicarboxamide
Synonyms: Collagenase-3 Inhibitor, Matrix Metalloproteinase-13 Inhibitor, 4,6-Pyrimidinedicarboxamide
MF: C22H20F2N4O2
FW: 410.4
Purity: ≥98%
UV/Vis.: λmax: 267 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

MMP-13 Inhibitor is supplied as a crystalline solid. A stock solution may be made by dissolving the MMP-13 inhibitor in the solvent of choice. MMP-13 Inhibitor is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of MMP-13 inhibitor in ethanol is approximately 0.5 mg/ml and approximately 2 mg/ml in DMSO and DMF. MMP-13 Inhibitor is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MMP-13 inhibitor should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MMP-13 Inhibitor has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MMP-13 Inhibitor is a pyrimidine dicarboxamide that inhibits matrix metalloproteinase-13 (MMP-13, also known as collagenase-3) with an IC50 value of 8 nM.1,2 MMP-13 Inhibitor binds to pockets that are unique to MMP-13, rather than the catalytic zinc, and thus is specific for MMP-13 over other MMPs.1,2 MMP-13 Inhibitor blocks osterix-dependent calcification of matrices in limb bud cells during endochondral ossification.3

References