www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

TMP269

产品编号: D50789
CAS: 1314890-29-3
分子式: C25H21F3N4O3S
纯度: ≥98%
InChi: InChI=1S/C25H21F3N4O3S/c26-25(27,28)22-31-20(32-35-22)17-7-4-8-18(13-17)21(33)29-15-24(9-11-34-12-10-24)23-30-19(14-36-23)16-5-2-1-3-6-16/h1-8,13-14H,9-12,15H2,(H,29,33)
InChi Key: HORXBWNTEDOVKN-UHFFFAOYSA-N
Smiles: O=C(NCC1(CCOCC1)C1=NC(=CS1)C1C=CC=CC=1)C1C=CC=C(C=1)C1N=C(ON=1)C(F)(F)F
外观: 固体粉末
作用通路: HDAC
溶解性: DMSO up to 50 mM
保存条件: Store in dry, dark place for one year.
产品介绍: TMP269 is a highly potent, selective and cell-permeable class IIa HDAC inhibitor with IC50 of 126 nM, 80 nM, 36 nM and 19 nM for HDAC4, HDAC5, HDAC7 and HDAC9 respectively. It has very weak or no activity targeting the other HDACs (2-40 μM). TMP269 has an unprecedented metal-binding group, trifluoromethyloxadiazole (TFMO), which circumvents the selectivity and pharmacologic liabilities of hydroxamates. Crystallography revealed a direct metal binding of the TFMO, and the chemo-proteomics approach demonstrated the superior selectivity of TMP269 relative to the other hydroxamate-substituted analogs via a chelating zinc-binding group. TMP269 alters gene expression unlike class I and IIb HDAC inhibitors and affects colony-stimulating factor responses. The discovery of TMP269 provides an alternative design for targeting metalloenzymes than the conventional chelating metal-binding group, and suggests a therapeutic potential for class IIa HDAC inhibitors that are distinct in mechanism and application compared to current HDAC inhibitors.