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UNC1215

产品编号: D50759
CAS: 1415800-43-9
分子式: C32H43N5O2
纯度: ≥98%
InChi: InChI=1S/C32H43N5O2/c38-31(36-20-12-27(13-21-36)34-16-4-5-17-34)25-10-11-29(30(24-25)33-26-8-2-1-3-9-26)32(39)37-22-14-28(15-23-37)35-18-6-7-19-35/h1-3,8-11,24,27-28,33H,4-7,12-23H2
InChi Key: PQOOIERVZAXHBP-UHFFFAOYSA-N
Smiles: O=C(C1C=CC(=CC=1NC1C=CC=CC=1)C(=O)N1CCC(CC1)N1CCCC1)N1CCC(CC1)N1CCCC1
外观: 固体粉末
作用通路: Apoptosis
溶解性: DMSO up to 50 mM
保存条件: Store in dry, dark place for one year.
产品介绍: UNC1215 is a highly potent and selective small molecule inhibitor for the methyl-lysine (Kme) reading function of L3MBTL3, a member of the malignant brain tumor (MBT) family of chromatin-interacting transcriptional repressors. UNC1215 binds to L3MBTL3 with a Kd of 120 nM (IC50 ~ 20 nM), competitively displacing mono- or dimethyl-lysine-containing peptides, and is greater than 50-fold more potent toward L3MBTL3 than other members of the MBT family. It also displays >100-fold selectivity over a panel of more than 200 histone methyltransferases, kinases, ion channels and 7-TM receptors. In cells, UNC1215 is nontoxic and directly binds to L3MBTL3 via the Kme-binding pocket of the MBT domains. It increases the cellular mobility of GFP-L3MBTL3 fusion proteins, and point mutants that disrupt the Kme-binding function of GFP-L3MBTL3 phenocopy the effects of UNC1215 on localization. UNC1215 was used to reveal a new Kme-dependent interaction of L3MBTL3 with BCLAF1, a protein implicated in DNA damage repair and apoptosis. UNC1215 can serve as a useful chemical tool to interrogate the functions of MBT proteins and probe methyl-lysine reader proteins as a target class.