

Product Data Sheet

Product Name: UNC0321

Cat. No.: GC37856

Chemical Properties

Cas. No. 1238673-32-9

SMILES CN1CCC(NC2=C3C=C(OC)C(OCCOCCN(C)C)=CC3=NC(N4CCN(C)CCC4)=N2)CC1

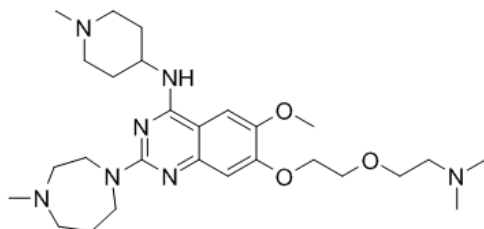
Formula $C_{27}H_{45}N_7O_3$ M.Wt 515.69

Solubility DMSO: ≥ 31 mg/mL (60.11 mM) Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

UNC0321 is a potent and selective G9a inhibitor with K_i of 63 pM, UNC0321 is the first G9a inhibitor with picomolar potency and the most potent G9a inhibitor to date. IC_{50} value: 63 pM (K_i); 9 nM (ECSD assay) [1]. Target: G9a. It was found that replacing the 5-carbon chain in compound 13 with an ethoxyethyl chain resulted in compound 29 {UNC0321} (IC_{50} = 6 nM (CLOT) and 9 nM (ECSD)), the most potent G9a inhibitor to date. 29 had a Morrison K_i of 63 pM and was about 40-fold more potent than 10 (Morrison K_i = 2.6 nM) and 250-fold more potent than 3a (Morrison K_i = 16 nM) in this G9a assay. UNC0321 potentially useful small molecule tools for the biomedical research community to

Caution: Product has not been fully validated for medical applications. For research use only.

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investigate the biology of G9a and its role in chromatin remodeling as well as PTMs of other proteins.

[1]. Liu F, et al. Protein lysine methyltransferase G9a inhibitors: design, synthesis, and structure activity relationships of 2,4-diamino-7-aminoalkoxy-quinazolines. J Med Chem. 2010 Aug 12;53(15):5844-57. [2]. Liu F, et al. Optimization of cellular activity of G9a inhibitors 7-aminoalkoxy-quinazolines. J Med Chem. 2011 Sep 8;54(17):6139-50.

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