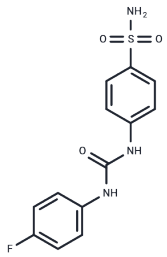
Data Sheet (Cat.No.T2017)

TargetMol

U-104

Chemical Properties



CAS No. : 178606-66-1

Formula: C13H12FN3O3S

Molecular Weight: 309.32

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	U-104 (NSC-213841) is an effective carbonic anhydrase (CA) inhibitor for CA IX(Ki=45.1 nM) and CA XII(Ki=4.5 nM).
Targets(IC50)	Carbonic Anhydrase
In vitro	UNC1215 increased cell mobility and point mutations of the GFP-L3MBTL3 fusion protein, interfered with the Kme-binding function of the GFP-L3MBTL3 phenotypic mimic, and affected the localization of UNC1215.UNC1215 (30 μM) did not affect the tandem Tudor domain of UHRF1, the chromatin domain of CBX7, and the PHD domain of JARID1A. In MCF7,22RV1 and IMR90 cells, UNC0631 significantly reduced H3K9me2 levels. Brimonidine (0.5/1 mg/kg) reduced progressive ganglion cell loss (26%/15%).
In vivo	UNC1215 increased cell mobility and point mutations of the GFP-L3MBTL3 fusion protein, interfered with the Kme-binding function of the GFP-L3MBTL3 phenotypic mimic, and affected the localization of UNC1215.UNC1215 (30 μM) did not affect the tandem Tudor domain of UHRF1, the chromatin domain of CBX7, and the PHD domain of JARID1A. In MCF7,22RV1 and IMR90 cells, UNC0631 significantly reduced H3K9me2 levels. Brimonidine (0.5/1 mg/kg) reduced progressive ganglion cell loss (26%/15%).
Kinase Assay	Kinase assay: Calu-6 cells are cultured in MEM containing 10% fetal bovine serum and 1% penicillin/streptomycin and plated 1 day before the start of the experiment at 1 × 104 cells per well in a 384-well plate. Proteasome activity is assessed by monitoring hydrolysis of the chymotrypsin-like substrate Suc-LLVY-aminoluciferin in the presence of luciferase using the Proteasome-Glo assay reagents according to the manufacturer's instructions. Luminescence is measured using a LEADseeker instrument.

Solubility Information

Solubility	DMSO: 242.5 mg/mL (783.98 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.47 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2329 mL	16.1645 mL	32.329 mL
5 mM	0.6466 mL	3.2329 mL	6.4658 mL
10 mM	0.3233 mL	1.6164 mL	3.2329 mL
50 mM	0.0647 mL	0.3233 mL	0.6466 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lou Y, et al. Cancer Res, 2011, 71(9), 3364-3376.
Lock FE, et al. Oncogene, 2012, doi: 10.1038, onc.2012. 550.
Pacchiano F, et al. J Med Chem, 2011, 54(6), 1896-1902.