

CAIX Inhibitor S4

Chemical Properties

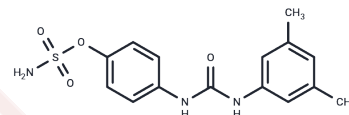
CAS No. : 1330061-67-0

Formula: C₁₅H₁₇N₃O₄S

Molecular Weight: 335.38

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	CAIX Inhibitor S4 (S4) is an effective inhibitor of carbonic anhydrase IX/XII with a K_i of 7 nM and 2 nM, respectively. The K_{is} for CA II and CA I are 546 and 5600 nM.
Targets(IC ₅₀)	Carbonic Anhydrase
In vitro	CAIX Inhibitor S4 (33 μ M; 15-60 min) delays the cell spreading of MDA-MB-231 cells in anoxia but essentially not in normoxia. CAIX Inhibitor S4 (1, 10, 100 μ M; 24 h) inhibits the proliferation of MDA-MB-231, HCT116 and HT29 cells in a dose-dependent manner with IC ₅₀ s of 481 μ M, >1000 μ M, and 20 μ M, respectively. CAIX Inhibitor S4 (3.3-33 μ M; 24 h) inhibits the eGFP-MDA-MB-231 cell migration in anoxia in a concentration-dependent manner[1].
In vivo	CAIX Inhibitor S4 (10 mg/kg; i.p.) reduces lung metastasis in the orthotopic MDA-MB-231 mouse model without impacting primary tumor growth[1].

Solubility Information

Solubility	DMSO: 245 mg/mL (730.51 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9817 mL	14.9085 mL	29.8169 mL
5 mM	0.5963 mL	2.9817 mL	5.9634 mL
10 mM	0.2982 mL	1.4908 mL	2.9817 mL
50 mM	0.0596 mL	0.2982 mL	0.5963 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

Gieling et al (2012) Antimetastatic effect of sulfamate carbonic anhydrase IX inhibitors in breast carcinoma xenografts. J.Med.Chem. 55 5591

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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