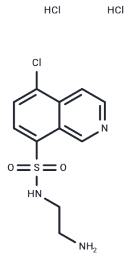
Data Sheet (Cat.No.T19913)

TargetMol

CKI-7

Chemical Properties



CAS No. : 1177141-67-1

Formula: C11H14Cl3N3O2S

Molecular Weight: 358.67

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	CKI-7 is a potent, ATP-competitive inhibitor of casein kinase 1 (CK1; IC50: 6 μM; Ki: 8.5 μM) and a selective Cdc7 kinase inhibitor. It also inhibits SGK, ribosomal S6 kinase-1 (S6K1), and MSK1.
Targets(IC50)	Casein Kinase,CDK,ROCK,S6 Kinase,SGK

Solubility Information

Solubility	DMSO: 65 mg/mL (181.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7881 mL	13.9404 mL	27.8808 mL
5 mM	0.5576 mL	2.7881 mL	5.5762 mL
10 mM	0.2788 mL	1.394 mL	2.7881 mL
50 mM	0.0558 mL	0.2788 mL	0.5576 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

Osakada F, et al. In vitro differentiation of retinal cells from human pluripotent stem cells by small-molecule induction. J Cell Sci. 2009 Sep 1;122(Pt 17):3169-79.

Rachidi N, Taly JF, Durieu E, Leclercq O, Aulner N, Prina E, Pescher P, Notredame C, Meijer L, Späth GF. Pharmacological assessment defines Leishmania donovani casein kinase 1 as a drug target and reveals important functions in parasite viability and intracellular infection. Antimicrob Agents Chemother. 2014;58(3):1501-15. doi: 10.1128/AAC.02022-13. Epub 2013 Dec 23. PubMed PMID: 24366737; PubMed Central PMCID: PMC3957854.

Tian Y, Yue X, Luo D, Wazir R, Wang J, Wu T, Chen L, Liao B, Wang K. Increased proliferation of human bladder smooth muscle cells is mediated by physiological cyclic stretch via the PI3K SGK1 Kv1.3 pathway. Mol Med Rep. 2013 Jul;8(1):294-8. doi: 10.3892/mmr.2013.1473. Epub 2013 May 13. PubMed PMID: 23669863.

Boesger J, Wagner V, Weisheit W, Mittag M. Application of phosphoproteomics to find targets of casein kinase 1 in the flagellum of chlamydomonas. Int J Plant Genomics. 2012;2012:581460. doi: 10.1155/2012/581460. Epub 2012 Dec 18. PubMed PMID: 23316220; PubMed Central PMCID: PMC3536430.

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