Data Sheet (Cat.No.T1820)

TargetMol

CK-636

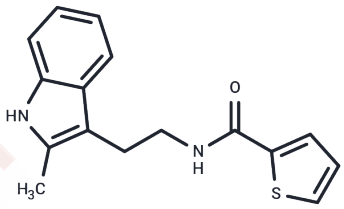
Chemical Properties

CAS No. : 442632-72-6

Formula: C16H16N2OS

Molecular Weight: 284.38

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	CK-636 (CK-0944636), an Arp2/3 complex inhibitor, can inhibit actin polymerization induced by the human (IC50: 4 μM), fission yeast (IC50: 24 μM) and bovine (IC50: 32 μM) Arp2/3 complex, respectively.
Targets(IC50)	Microtubule Associated,Arp2/3 Complex
In vivo	CK-636 slows down cell migration by inhibiting the formation of lamellipodia at the leading edge of migrating T-cells. In live cells, it suppresses actin polymerization mediated by the Arp2/3 complex. In infected SKOV3 cells, CK-636 reduces the formation of actin filaments. Moreover, a majority of T-cells treated with CK-636 exhibit a turning event upon encountering a zigzag-shaped interface during a letter-shaped test experiment.
Kinase Assay	HDAC inhibition assays: HDAC inhibition assays are performed by Reaction Biology Corp. using isolated human, recombinant full2length HDAC1 and -6 from a baculovirus expression system in Sf9 cells. An acetylated fluorogenic peptide,RHKKAc, derived from residues 379-382 of p53 is used as substrate. The reaction buffer is made up of 50 mM Tris-HCl pH 8.0, 127 mM NaCl, 2.7 mM KCl, 1 mM MgCl2, 1 mg/mL BSA, and a final concentration of 1% DMSO. Compounds are delivered in DMSO and delivered to enzyme mixture with preincubation of 5-10 min followed by substrate addition and incubation for 2 h at 30°C. Trichostatin A and developer are added to quench the reaction and generate fluorescence, respectively. Dose-response curves are generated starting at 30 μM compound with three-fold serial dilutions to generate a 10-dose plot. IC50 values are then generated from the resulting plots, and the values expressed are the average of duplicate trials ± standard deviation.

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 47 mg/mL (165.27 mM),Sonication is recommended. DMSO: 40 mg/mL (140.66 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 (7.03 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*

In vivo Formulation	*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	3.5164 mL	17.5821 mL	35.1642 mL
5 mM	0.7033 mL	3.5164 mL	7.0328 mL
10 mM	0.3516 mL	1.7582 mL	3.5164 mL
50 mM	0.0703 mL	0.3516 mL	0.7033 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

Nolen BJ, et al. Nature. 2009 , 460(7258), 1031-1034.
Zhu X, Zhao Y, Liu Y, et al.Macrophages release IL11-containing filopodial tip vesicles and contribute to renal interstitial inflammation.Cell Communication and Signaling.2023, 21(1): 1-17.
Kwon KW, et al. PLoS One. 2013, 8(9), e73960.