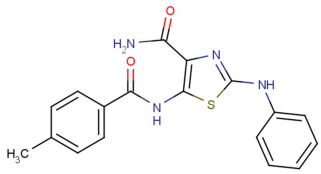
Data Sheet (Cat.No.T11793)

KY-05009

Chemical Properties



CAS No.:	1228280-29-2
Formula:	C18H16N4O2S
Molecular Weight:	352.41
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	KY-05009 pharmacologically inhibits TGF-β1-induced epithelial-to-mesenchymal transition (EMT) in human lung adenocarcinoma cells. KY-05009 inhibits the protein expression of TNIK and transcriptional activity of Wnt target genes and induces apoptosis in cancer cells. KY-05009 exerts anti-cancer activity. KY-05009 is an ATP-competitive Traf2- and Nck-interacting kinase (TNIK) inhibitor with a Ki of 100 nM.
Targets(IC_{50})	TNIK: 100 nM (ki)
In vitro	KY-05009 (1-3 μM; 48-72 hours; RPMI8226 cells) treatment induces caspase-dependent apoptosis in RPMI8226 cells in a dose-dependent manner. KY-05009 (3 μM; 1 hour; RPMI8226 cells) treatment suppresses the transcriptional activity of Wnt signaling-related genes, including TNIK, CTNNB1, TCF7, and TCF4. KY-05009 (3 μM; 9 hours; RPMI8226 cells) treatment inhibits the IL-6-induced interaction between TCF4 and β-catenin and the phosphorylation of TCF4.KY-05009 (0.1-30 μM; 24 hours; RPMI8226 cells) treatment inhibits the proliferation of RPMI8226 cells in a dose-dependent manner.

Solubility Information

Solubility	DMSO: 83.33 mg/mL (236.46 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.838 mL	14.188 mL	28.376 mL
5 mM	0.568 mL	2.838 mL	5.675 mL
10 mM	0.284 mL	1.419 mL	2.838 mL
50 mM	0.057 mL	0.284 mL	0.568 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Lee Y, et al. Synergistic inhibition effect of TNIK inhibitor KY-05009 and receptor tyrosine kinase inhibitor dovitinib on IL-6-induced proliferation and Wnt signaling pathway in human multiple myeloma cells. Oncotarget. 2017 Jun 20;8(25):41091-41101.

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Tel:781-999-4286 E-mail:info@targetmol.com Address:36 Washington Street,Wellesley Hills,MA 02481