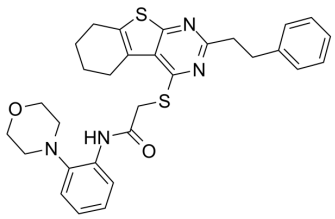
iHCK-37

Cat. No.:	HY-139147
CAS No.:	516478-09-4
Molecular Formula:	$C_{30}H_{32}N_4O_2S_2$
Molecular Weight:	544.73
Target:	Src
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 275 mg/mL (504.84 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8358 mL	9.1789 mL	18.3577 mL
	5 mM	0.3672 mL	1.8358 mL	3.6715 mL
	10 mM	0.1836 mL	0.9179 mL	1.8358 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

iHCK-37 (ASN05260065) is a potent and specific Hck inhibitor with a K_i value of 0.22 μM. iHCK-37 blocks HIV-1 viral replication with an EC_{50} value of 12.9 μM. iHCK-37 is used for chronic myeloid leukemia (CML) research[1].

IC_{50} & Target

Ki: 0.22 μM (Hck)[1]

In Vitro

iHCK-37 (5.0-20 μM; 24 hours) exhibits a potent in vitro antiproliferative activity. The dose (μM) for growth inhibition (GI_{50}) is 5.0-5.8 μM for AML cell lines (HL60, KG1a and U937) and 9.1-19.2 μM for chronic myeloid leukemia cell lines (HEL and K562)[2].

iHCK-37 (3-9 μM; plus Erythropoietin) leads to a decrease in ERK, AKT and P70S6K phosphorylation of in lentivirus HCK silenced K562 and U937 cell lines[2].

iHCK-37 (3-9 μM) results in a decrease of p-HCK, p-ERK, p-AKT, p-70S6 in the cell line KG1a (AML/$CD34^+$), in a dose-dependent manner[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	U937, HL60, KG1a, HEL and K562 cells
Concentration:	5.0-20 μM
Incubation Time:	24 hours
Result:	Exhibited a reduction of growth in a dose-dependent manner.

REFERENCES

[1]. Cristina Tintori, et al. Identification of Hck inhibitors as hits for the development of antileukemia and anti-HIV agents. ChemMedChem. 2013 Aug;8(8):1353-60.

[2]. Fernanda Marconi Roversi, et al. Hematopoietic cell kinase (HCK) is a potential therapeutic target for dysplastic and leukemic cells due to integration of erythropoietin/PI3K pathway and regulation of erythropoiesis: HCK in erythropoietin/PI3K pathway. Biochim Biophys Acta Mol Basis Dis. 2017 Feb;1863(2):450-461.

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