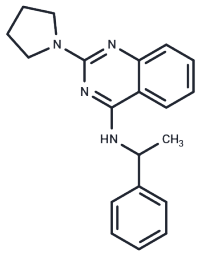
Data Sheet (Cat.No.T3445)

TargetMol

Importazole

Chemical Properties



CAS No. : 662163-81-7

Formula: C20H22N4

Molecular Weight: 318.42

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	Importazole is an inhibitor of the nuclear transport receptor importin-β.
Targets(IC50)	Apoptosis
In vitro	Importazole is an effective inhibitor of the Ran/importin-β interaction in vitro. Importazole specifically blocks importin-β-mediated nuclear import both in Xenopus egg extracts and cultured cells, without disrupting transportin-mediated nuclear import or CRM1-mediated nuclear export. When added during mitosis, importazole impairs the release of an importin-β cargo FRET probe and causes both predicted and novel defects in spindle assembly[1]. It also inhibits proliferation and induces apoptosis of multiple myeloma cells by blocking the NF-κB signal pathway in vitro[2].
Cell Research	For all import and export experiments, HEK 293 cells stably expressing NFAT-GFP are grown on glass coverslips to approximately 50% confluency prior to drug treatment. In all cases, importazole is used at 40 μM and leptomycin B is used at 10 ng/ml. For controls, DMSO is used at a concentration of 0.4%. Ionomycin is added at 1.25 μM. Importazole and leptomycin B treatments are all for 1 hour. In all experiments cells are fixed with 4% formaldehyde prior to fluorescence microscopy. DNA is visualized with 1 μg/ml Hoechst dye. For quantification, 100 cells from each condition are analyzed and the percentage that shows nuclear accumulation of NFAT-GFP calculated.(Only for Reference)

Solubility Information

Solubility	Ethanol: 28 mg/mL (87.93 mM),Sonication is recommended. DMSO: 29.41 mg/mL (92.36 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 (6.28 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 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	3.1405 mL	15.7025 mL	31.4051 mL
5 mM	0.6281 mL	3.1405 mL	6.281 mL
10 mM	0.3141 mL	1.5703 mL	3.1405 mL
50 mM	0.0628 mL	0.3141 mL	0.6281 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

Soderholm JF, et al. ACS Chem Biol. 2011, 6(7):700-8.
Li L, Li D, Sun D, et al.Nuclear import carrier Hikeshi cooperates with HSP70 to promote murine oligodendrocyte differentiation and CNS myelination.Developmental Cell.2023
Yan WQ, et al. Zhonghua Xue Ye Xue Za Zhi. 2013, 34(4):323-6.