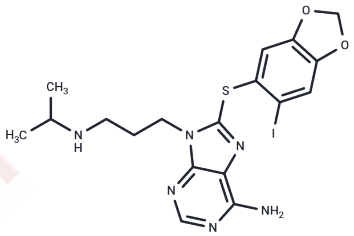
Data Sheet (Cat.No.T6960)

TargetMol

PU-H71

Chemical Properties



CAS No. : 873436-91-0

Formula: C18H21IN6O2S

Molecular Weight: 512.37

Storage: Store at low temperature,Store under nitrogen
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	PU-H71 is an effective selective HSP90 inhibitor with an IC50 of 51 nM.
Targets(IC50)	HSP
In vitro	PU-H71(1 μ M) potently inhibits the growth of triple negative breast cancer (TNBC) cell lines MDA-MB-468, MDA-MB-231, and HCC-1806, with IC50 values of 65, 140, and 87 nM, respectively. PU-H71(1 μ M) kills 80%, 65%, and 80% of MDA-MB-468, MDA-MB-231, and HCC-1806 cells, respectively[1].
In vivo	MDA-MB-231 model treated with PU-H71 at a dose of 75 mg/kg was 100% fully effective. After 37 days of treatment, tumor was replaced by scar tissue, accompanied by a reduction in many proliferative and anti apoptotic molecules, such as EGFR, HER3, Raf-1, Akt, and p-Akt, which decreased by 80%, 95%, 99%, 80%, and 65%, respectively. PU-H71 (75 mg/kg, three times a week) inhibits tumor growth by 96%, reduces tumor cell proliferation by 60%, decreases activated Akt associated with survival and high invasive potential by 85%, and increases apoptosis by 6-fold[1].

Solubility Information

Solubility	DMSO: 150 mg/mL (292.76 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (19.52 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (19.52 mM),Solution. *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	1.9517 mL	9.7586 mL	19.5171 mL
5 mM	0.3903 mL	1.9517 mL	3.9034 mL
10 mM	0.1952 mL	0.9759 mL	1.9517 mL
50 mM	0.039 mL	0.1952 mL	0.3903 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

Caldas-Lopes E, et al. Hsp90 inhibitor PU-H71, a multimodal inhibitor of malignancy, induces complete responses in triple-negative breast cancer models. Proc Natl Acad Sci U S A. 2009 May 19;106(20):8368-73.
Lin H Y H, Chen I Y, Wang T M, et al.Role of Mitochondrial AKT1 Signaling in Renal Tubular Injury of Metabolic Syndrome.Kidney International Reports.2024
The Role of Mitochondrial AKT1 Signaling in Renal Tubular Injury of Metabolic Syndrome