Data Sheet (Cat.No.T1914)

K02288

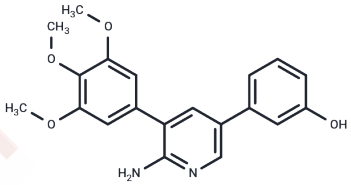
Chemical Properties

CAS No. : 1431985-92-0

Formula: C20H20N2O4

Molecular Weight: 352.38

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	K 02288 is a novel small molecule inhibitor of ALK1/2/3/6.
Targets(IC50)	ALK,TGF-beta/Smad
In vitro	In zebrafish embryos, K02288 induces dorsal phenotypes in a dose-dependent manner without affecting the formation of intersegmental vessels (ISV).
In vivo	K02288 dose-dependently inhibits Smad1/5/8 phosphorylation induced by BMP4 and BMP6 in C2C12 cells without affecting TGF-β-BMP signaling.

Solubility Information

Solubility	Ethanol: 3.5 mg/mL (9.93 mM),Heating is recommended. DMSO: 83.3 mg/mL (236.39 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 8.33 mg/mL (23.64 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 8.33 mg/mL (23.64 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	2.8378 mL	14.1892 mL	28.3785 mL
5 mM	0.5676 mL	2.8378 mL	5.6757 mL
10 mM	0.2838 mL	1.4189 mL	2.8378 mL
50 mM	0.0568 mL	0.2838 mL	0.5676 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

Sanvitale CE, et al. PLoS One. 2013, 8(4), e62721.
Qin X, Fu L, Li C, et al.Optimized inner ear organoids for efficient hair cell generation and ototoxicity response modeling.Science China Life Sciences.2025: 1-15.