

IDO1/TDO-IN-4

Chemical Properties

CAS No. : 461424-21-5

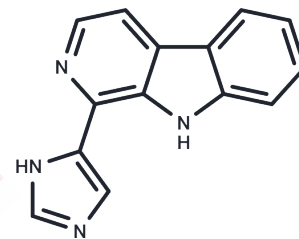
Formula: C₁₄H₁₀N₄

Molecular Weight: 234.26

Store at low temperature, Keep away from moisture

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	IDO1/TDO-IN-4 is a novel dual inhibitor of IDO1/TDO with antidepressant activity, forming hydrogen bonds with IDO1 and π - π stacking interactions with TDO. IDO1/TDO-IN-4 rescues lipopolysaccharide-induced depressive-like behaviors in mice, used for cancer and Alzheimer's disease research.
Targets(IC50)	IDO, Indoleamine 2,3-Dioxygenase (IDO)
In vitro	IDO1/TDO-IN-4 has dual inhibition on IDO1 and TDO with IC ₅₀ values of 3.53 μ M and 1.15 μ M, respectively. IDO1/TDO-IN-4 (0-2 μ M, 1 h) can inhibit the activity of BV2 microglia induced by LPS. [1]
In vivo	IDO1/TDO-IN-4 (20 mg/kg) also salvaged lipopolysaccharids-induced depression-like behavior IN mice. [1]

Solubility Information

Solubility	DMSO: 100 mg/mL (426.88 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2688 mL	21.3438 mL	42.6876 mL
5 mM	0.8538 mL	4.2688 mL	8.5375 mL
10 mM	0.4269 mL	2.1344 mL	4.2688 mL
50 mM	0.0854 mL	0.4269 mL	0.8538 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

Zhang Y, et al. Discovery of 1-(Hetero)aryl- β -carboline Derivatives as IDO1/TDO Dual Inhibitors with Antidepressant Activity. *J Med Chem.* 2022 Aug 25;65(16):11214-11228.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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