IDO-IN-7

Cat. No.: HY-13983

CAS No.: 1402836-58-1

Molecular Formula: $C_{18}H_{22}N_2O$

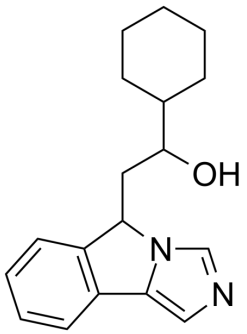
Molecular Weight: 282.38

Target: Indoleamine 2,3-Dioxygenase (IDO)

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (177.07 mM; Need ultrasonic)
Ethanol : 25 mg/mL (88.53 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.5413 mL	17.7066 mL	35.4133 mL
5 mM	0.7083 mL	3.5413 mL	7.0827 mL
10 mM	0.3541 mL	1.7707 mL	3.5413 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.85 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.85 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.85 mM); Clear solution
4. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.85 mM); Clear solution
5. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (8.85 mM); Clear solution
6. Add each solvent one by one: 10% EtOH >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.85 mM); Clear solution

BIOLOGICAL ACTIVITY

Description	IDO-IN-7 (NLG-919 analogue) is a a potent IDO1 inhibitor with an IC_{50} of 38 nM.
IC_{50} & Target	IDO1 38 nM (IC_{50})
In Vitro	IDO-IN-7 (NLG-919 analogue) is a potent IDO1 inhibitor (IC_{50}=38 nM). The binding mode of IDO-IN-7 to IDO1 is experimentally available and shows a direct coordinative interaction to the sixth coordination site of ferric heme. IDO-IN-7 has been used as reference compound in other studies to validate high-throughput screening assay for IDO1 inhibition and develop immunostimulatory nanomicellar carrier[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay	IDO-IN-7 (NLG-919 analogue) and the selected fragments 8, 15, and 18 are tested in cellular assay for their ability to cross cell membrane and inhibit IDO1 catalytic activity. The cell line of murine mastocytoma P1.HTR stably transfected with murine IDO1 (P1.IDO1) is cultured for 16 hrs in the presence of each compound at the concentration of 30 mM. The ability of P1.IDO1 cells to convert LTrp contained in the culture medium at the concentration of 78.4 μM into L-Kyn is then assessed after 16 hrs of incubation[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Adv Healthc Mater. 2023 Aug 21;e2302046.

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REFERENCES

[1]. Coletti A, et al. Fragment-based approach to identify IDO1 inhibitor building blocks. Eur J Med Chem. 2017 Dec 1;141:169-177.

Caution: Product has not been fully validated for medical applications. For research use only.

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