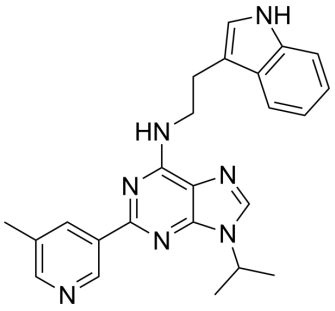
GNF351

Cat. No.:	HY-102023
CAS No.:	1227634-69-6
Molecular Formula:	$C_{24}H_{25}N_7$
Molecular Weight:	411.5
Target:	Aryl Hydrocarbon Receptor
Pathway:	Immunology/Inflammation
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 : ≥ 125 mg/mL (303.77 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4301 mL	12.1507 mL	24.3013 mL
	5 mM	0.4860 mL	2.4301 mL	4.8603 mL
	10 mM	0.2430 mL	1.2151 mL	2.4301 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: ≥ 2.08 mg/mL (5.05 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.05 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GNF351 is a full aryl hydrocarbon receptor (AHR) antagonist. GNF351 competes with a photoaffinity AHR ligand for binding to the AHR with an IC_{50} of 62 nM. GNF351 is minimal toxicity in mouse or human keratinocytes[1].

IC_{50} & Target

IC50: 62 nM (aryl hydrocarbon receptor)[1]

In Vitro

GNF351 (500 nM, 48 hours) significantly reduces the percentage of Ki67-positive cells and cell number after treating proliferating monolayer cultures of human keratinocytes[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Proliferation Assay[1]

Cell Line:	Human primary keratinocytes
Concentration:	500 nM
Incubation Time:	48 hours
Result:	Showed a significant reduction in the percentage of Ki67-positive cells and cell number after treating proliferating monolayer cultures of human keratinocytes for 48 hours.

CUSTOMER VALIDATION

- J Exp Clin Cancer Res. 2023 Mar 1;42(1):53.
- Int J Biol Macromol. 2022 Oct 1;222(Pt A):1127-1136.

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REFERENCES

[1]. van den Bogaard EH, et al. Genetic and pharmacological analysis identifies a physiological role for the AHR in epidermal differentiation. J Invest Dermatol. 2015 May;135(5):1320-1328.

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