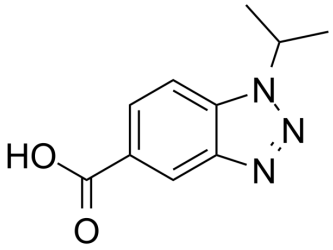
GPR109 receptor agonist-1

Cat. No.:	HY-107580
CAS No.:	306935-41-1
Molecular Formula:	$C_{10}H_{11}N_3O_2$
Molecular Weight:	205.21
Target:	GPR109A
Pathway:	GPCR/G Protein
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (487.31 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.8731 mL	24.3653 mL	48.7306 mL
	5 mM	0.9746 mL	4.8731 mL	9.7461 mL
	10 mM	0.4873 mL	2.4365 mL	4.8731 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 (12.18 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.18 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.18 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GPR109 receptor agonist-1 (Compound 3a) is a highly selective agonist of the human orphan G-protein-coupled receptor GPR109b, with the pEC_{50} of 6.4. GPR109 receptor agonist-1 can be used for the research of cardio-metabolic diseases[1].

IC_{50} & Target

pEC_{50}: 6.40 ± 0.36 (GPR109b)[1]

REFERENCES

[1]. Graeme Semple, et al. 1-Alkyl-benzotriazole-5-carboxylic acids are highly selective agonists of the human orphan G-protein-coupled receptor GPR109b. J Med Chem. 2006 Feb 23;49(4):1227-30.

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