AS1269574

Cat. No.: HY-107535

CAS No.: 330981-72-1

Molecular Formula: $C_{13}H_{14}BrN_3O$

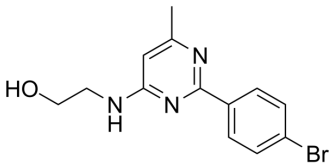
Molecular Weight: 308.17

Target: GPR119; TRP Channel

Pathway: GPCR/G Protein; Neuronal Signaling; Membrane Transporter/Ion Channel

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (811.24 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2450 mL	16.2248 mL	32.4496 mL
	5 mM	0.6490 mL	3.2450 mL	6.4899 mL
	10 mM	0.3245 mL	1.6225 mL	3.2450 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 (6.75 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.75 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AS1269574 is a potent, orally available GPR119 agonist, with an EC_{50} of 2.5 μM in HEK293 cells expressing human GPR119. AS1269574 activates TRPA1 cation channels to stimulate glucagon-like peptide-1 (GLP-1) secretion. AS1269574 specifically induces glucose-dependent insulin secretion from pancreatic β-cells only under high-glucose conditions. AS1269574 has the potential for the research of type 2 diabetes[1][2].

IC_{50} & Target		
	GPR119	TRPA1

In Vivo

AS1269574 sgnificantly reduced the blood glucose AUC after 2 h ($AUC_{0\text{-}2h}$) of administration[1].

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

Animal Model:	Eight-week-old ICR mice[1]
Dosage:	100 mg/kg
Administration:	P.o.
Result:	Sgnificantly reduced the blood glucose AUC after 2 h (AUC_{0-2h}) of administration. Similarly, plasma insulin AUC_{0-2h} was significantly higher in the mice.

REFERENCES

[1]. Yoshida S, et al. Identification of a novel GPR119 agonist, AS1269574, with in vitro and in vivo glucose-stimulated insulin secretion. Biochem Biophys Res Commun. 2010;400(3):437-441.

[2]. Chepurny OG, et al. GPR119 Agonist AS1269574 Activates TRPA1 Cation Channels to Stimulate GLP-1 Secretion. Mol Endocrinol. 2016;30(6):614-629.

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