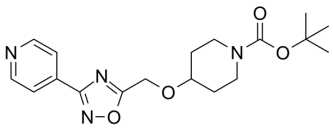
PSN632408

Cat. No.:	HY-16673
CAS No.:	857652-30-3
Molecular Formula:	$C_{18}H_{24}N_4O_4$
Molecular Weight:	360.41
Target:	GPR119
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (138.73 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7746 mL	13.8731 mL	27.7462 mL
	5 mM	0.5549 mL	2.7746 mL	5.5492 mL
	10 mM	0.2775 mL	1.3873 mL	2.7746 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 (6.94 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.94 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PSN632408, a selective, orally active GPR119 agonist, shows similar potency to OEA at both recombinant mouse and human GPR119 receptors (EC_{50}=5.6 and 7.9 uM, respectively). PSN632408 can stimulate β-cell replication and improve islet graft function. PSN632408 has the potential for the research of obesity and related metabolic disorders[1][2].

In Vitro

PSN632408 produces concentration-dependent increases in cAMP level with mean EC_{50} value of 1.9 uM[1].
PSN632408 stimulates β cell replication in cultured mouse islets[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

PSN632408 (100 mg/kg; p.o.; daily for 14 days) suppresses food intake in rats and reduce body weight gain and white adipose tissue deposition upon subchronic oral administration to high-fat-fed rats[1].

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

Animal Model:	Diet-induced obese (DIO) rats[1]
Dosage:	100 mg/kg
Administration:	P.o.; daily for 14 days
Result:	The mean daily food intake was decreased by 10% during the first week of dosing and 15% during the second week. Body weight gain was significantly attenuated from day 6 onward with some evidence of weight loss.

REFERENCES

[1]. Gao J, et al. Stimulating beta cell replication and improving islet graft function by GPR119 agonists. Transpl Int. 2011;24(11):1124-1134.

[2]. Overton HA, et al. Deorphanization of a G protein-coupled receptor for oleoylethanolamide and its use in the discovery of small-molecule hypophagic agents. Cell Metab. 2006;3(3):167-175.

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