Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

FAA1 agonist-1

Catalog No: tcsc0023823

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
2102196-57-4

Formula:
$C_{21}H_{17}ClO_5S$

Pathway:
GPCR/G Protein

Target:
GPR40

Purity / Grade:
>98%

Solubility:
DMSO : 160 mg/mL (383.81 mM; Need ultrasonic and warming)

Observed Molecular Weight:
416.87

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Product Description

FAA1 agonist-1 is a potent **free fatty acid receptor 1** (**FFA1/ GPR40**) agonist with a **pEC_{50}** of 7.54.

IC50 & Target: pEC_{50}: 7.54 (FFA1/GPR40)[1]

In Vitro: FAA1 agonist-1 (compound 20) (10 mg/kg) presents superior pharmacokinetic (PK) profiles, in particular, a high maximum concentration (C_{max}=2563.52 μg/L), low clearance (CL=0.154 L/h/kg), long plasma half-life ($T_{1/2}$=5.57 h) and results in a high exposure (AUC_{0-24h}=30204.43 μg/L•h). FAA1 agonist-1 also tends to have a low risk of activating caspase-3/7[1].

In Vivo: Single oral administration of FAA1 agonist-1 (compound 20) robustly reduces the plasma glucose excursion and enhances insulin secretion during an oral glucose tolerance test (OGTT) in a dose-dependent manner from 1 to 10 mg/kg when FAA1 agonist-1 is dosed 60 min prior to the oral glucose challenge. The area under the curve of blood glucose ($AUC_{0-120min}$) and blood insulin ($AUC_{0-120min}$) reveal that the minimum effective dose of FAA1 agonist-1 is 3 mg/kg. The hyperglycemia state is also markedly improved in FAA1 agonist-1 (20 mg/kg) treated group[1].