

Product Data Sheet

Product Name: HWL-088

Cat. No.: GC63010

Chemical Properties

Cas. No. 2378617-96-8

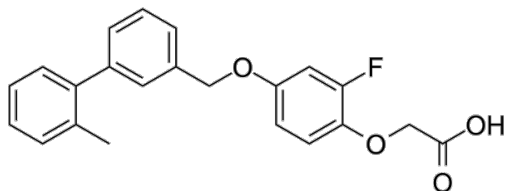
Formula $C_{22}H_{19}FO_4$ M.Wt 366.38

Solubility DMSO : 250 mg/mL (682.35 mM; Storage Store at -20°C
Need ultrasonic)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Caution: Product has not been fully validated for medical applications. For research use only.

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HWL-088 is a highly potent and orally active free fatty acid receptor 1 (FFA1/GPR40) agonist (EC₅₀ of 18.9 nM) with moderate PPAR δ activity (EC₅₀ of 570.9 nM). HWL-088 improves glucose and lipid metabolism, and has anti-diabetic effects[1][2].

HWL-088 (0.3 μ M and 3 μ M) significantly increases insulin secretion from MIN6 cells at 25 mM but not at 2 mM glucose. HWL-088 reveals a dose-dependent insulinotropic effect in the presence of 25-mM glucose[2].

HWL-088 (40 mg/kg; oral gavage; daily; for 30 days; ob/ob mice) treatment improves β -cell function by up-regulation of pancreas duodenum homeobox-1, reduces fat accumulation in adipose tissue and alleviated fatty liver in ob/ob mice. The effect of HWL-088 involves a reduction in hepatic lipogenesis and oxidative stress, increased lipoprotein lipolysis, glucose uptake, mitochondrial function and fatty acid β -oxidation[2].

[1]. Li Z, et al. Discovery of HWL-088: A highly potent FFA1/GPR40 agonist bearing a phenoxyacetic acid scaffold. *Bioorg Chem.* 2019 Nov;92:103209.

[2]. Yueming Chen, et al. HWL-088, a new potent free fatty acid receptor 1 (FFAR1) agonist, improves glucolipid metabolism and acts additively with metformin in ob/ob diabetic mice. *Br J Pharmacol.* 2020 May;177(10):2286-2302.

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