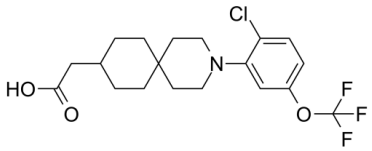
Data Sheet

Product Name:	GPR120-IN-1
Cat. No.:	CS-6429
CAS No.:	1599477-75-4
Molecular Formula:	C19H23ClF3NO3
Molecular Weight:	405.84
Target:	GPR120
Pathway:	GPCR/G Protein
Solubility:	DMSO : ≥ 50 mg/mL (123.20 mM)



BIOLOGICAL ACTIVITY:

GPR120-IN-1 is a selective **Gpr120** agonist with a **logEC$_{50}$** of −7.62. IC50 & Target: logEC50: −7.62[1] **In Vitro:** GPR120-IN-1 is fully selective for Gpr120 (logEC50=−7.62) with negligible activity towards Gpr40. GPR120-IN-1 produces concentration dependent increases in IP_3 production from both human and mouse Gpr120 expressing cells. GPR120-IN-1 leads to a concentration-dependent response to recruit β-arrestin-2 in both human and mouse Gpr120 expressing cells, with EC_{50}s of ~0.35 μM. GPR120-IN-1 strongly and comparably inhibits LPS-induced phosphorylation of Tak1, Ikkβ, and Jnk and blocked IκB degradation [1]. **In Vivo:** GPR120-IN-1 causes improved insulin sensitivity with increased glucose infusion rates, enhanced insulin stimulated-glucose disposal rate, along with a marked increase in the ability of insulin to suppress hepatic glucose production only in WT mice. GPR120-IN-1 treatment has beneficial effects on hepatic lipid metabolism, causing decreased hepatic steatosis, decreased liver triglycerides, and DAGs, along with reduced saturated free fatty acid conten[1].

PROTOCOL (Extracted from published papers and Only for reference)

Animal Administration: [1]Mouse: Male C57Bl/6 WT or Gpr120 KO littermates are fed a normal chow (13.5% fat) or high-fat diet (60% fat) ad libitum for 15-20 weeks from 8 weeks of age. After 15 weeks on HFD, WT and Gpr120 KO mice are switched to an isocaloric HFD supplemented with ω3-FA concentrate or 30 mg/kg GPR120-IN-1 and fed for 5 weeks. Mice receive fresh diet every 3rd day, and food consumption and body weight are monitored[1].

References:

[1]. Oh DY, et al. A Gpr120-selective agonist improves insulin resistance and chronic inflammation in obese mice. Nat Med. 2014 Aug;20(8):942-7.

CAIndexNames:

3-Azaspiro[5.5]undecane-9-acetic acid, 3-[2-chloro-5-(trifluoromethoxy)phenyl]-

SMILES:

O=C(O)CC(CC1)CCC21CCN(C3=CC(OC(F)(F)F)=CC=C3Cl)CC2

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

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA