Product Datasheet

GLP-1R agonist 2

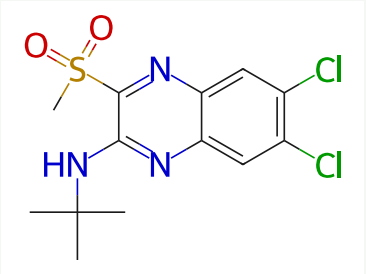
Catalog No. **BP-08807** · CAS **281209-71-0** · Form **free base** · Physical state **solid** · Color **Light yellow to yellow** · Version **1.0** · Revision **2026-11-13**

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Target	Research area
GCGR	**Metabolic Disease**

Molecular formula	**$C_{13}H_{15}Cl_2N_3O_2S$**
Molecular weight	**348.2550**

STRUCTURE



DESCRIPTION

GLP-1R agonist 2 (compound 2) is an effective GLP-1R agonist that exerts its activating effect by forming hydrogen bonds with the Tyr42, Cys71, and Ser84 residues of GLP-1R. GLP-1R agonist 2 has the potential for research in metabolic diseases such as type 2 diabetes and obesity .

BIOLOGICAL ACTIVITY

GLP-1R agonist 2 (100 nM, 1,000 nM) activates GLP-1 receptor-mediated cAMP production, with an EC50 of 101 nM, but exhibits a self-limiting effect at high concentrations[2].

GLP-1R agonist 2 (100 nM) enhances GLP-1 binding to the GLP-1 receptor, reducing the Kd value from 0.51 nM to 0.19 nM[2].

GLP-1R agonist 2 (100 nM, 1,000 nM) promotes glucose-dependent insulin secretion in CD1 mouse islets, and this effect is dependent on the GLP-1 receptor. Specifically, at concentrations of 100 nM and 1,000 nM, GLP-1R agonist 2 significantly enhances 10 mM glucose-induced insulin secretion, similar to GLP-1, and this effect is abolished in islets from GLP-1 receptor knockout mice

SOLUBILITY

Soluble in DMSO : 25 mg/mL

In vitro	DMSO : 25 mg/mL

REFERENCES

[1]. Girdhar K, et al. Novel insights into the dynamics behavior of glucagon-like peptide-1 receptor with its small molecule agonists. J Biomol Struct Dyn. 2019 Sep;37(15):3976-3986.

[2]. Knudsen LB, et al. Small-molecule agonists for the glucagon-like peptide 1 receptor. Proc Natl Acad Sci U S A. 2007 Jan 16;104(3):937-42.