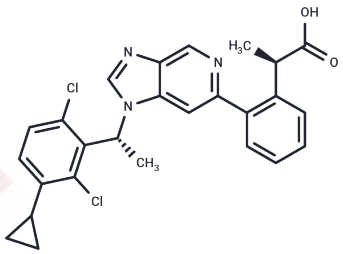
Data Sheet (Cat.No.T63166)

TargetMol

LSN3318839

Chemical Properties



CAS No. : 2764704-18-7

Formula: C26H23Cl2N3O2

Molecular Weight: 480.39

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	LSN3318839 is a small-molecule compound and a positive allosteric modulator of the glucagon-like peptide-1 receptor (GLP-1R), featuring oral activity and selective enhancement of G protein-coupled signaling, which promotes glucose-dependent insulin secretion for blood glucose reduction.
Targets(IC50)	Glucagon Receptor
In vitro	**Methods**: The broth microdilution method was used to detect the in vitro antibacterial activity of LSN3318839. Strains including Staphylococcus aureus, MRSA, Streptococcus pneumoniae, and Haemophilus influenzae were selected. Serial concentration gradients were set, and MIC was determined after incubation at 37°C for 18–24 h. **Results**: LSN3318839 showed strong inhibitory effects against Gram-positive bacteria and some Gram-negative bacteria, with low MIC values against MRSA and significant concentration-dependent bactericidal effects. [1] **Methods**: The MTT assay was used to detect the in vitro antitumor activity of LSN3318839. Tumor cells HCT116, MCF7, HepG2, and A549, as well as normal cells L02 and HUVEC, were selected. Concentrations of 0–50 μM were set, and cells were incubated at 37°C with 5% CO_2 for 48 h. **Results**: LSN3318839 showed the strongest inhibitory effect against A549 cells, with an IC_{50} of 5.4 μM. It elevated ROS levels, induced S-phase arrest, and activated the mitochondrial apoptosis pathway, with low toxicity to normal cells. [2]
In vivo	**Methods**: A C57BL/6 mouse LPS-induced systemic inflammation model was used. LSN3318839 was administered by oral gavage at doses of 50 and 100 mg/kg as a single dose, followed by intraperitoneal LPS injection 1 hour later to establish the model. The vehicle was conventional pharmaceutical excipients, with a vehicle control group and CA 4948 positive control group established. **Results**: LSN3318839 significantly reduced serum TNF-α levels in mice, with the 100 mg/kg dose showing efficacy comparable to the positive control drug, demonstrating definite in vivo anti-inflammatory activity and rapid oral onset. [3]

Solubility Information

Solubility	DMSO: 255 mg/mL (530.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0816 mL	10.4082 mL	20.8164 mL
5 mM	0.4163 mL	2.0816 mL	4.1633 mL
10 mM	0.2082 mL	1.0408 mL	2.0816 mL
50 mM	0.0416 mL	0.2082 mL	0.4163 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Zhang, Zhe et al. Design, synthesis and biological activities of novel pleuromutilin derivatives with a substituted triazole moiety as potent antibacterial agents. European journal of medicinal chemistry vol. 204 (2020): 112604.
Lu, Yuanyuan et al. Design, combinatorial synthesis and biological evaluations of novel 3-amino-1'-((1-aryl-1H-1,2,3-triazol-5-yl)methyl)-2'-oxospiro[benzo[a] pyrano[2,3-c]phenazine-1,3'-indoline]-2-carbonitrile antitumor hybrid molecules. European journal of medicinal chemistry vol. 135 (2017): 125-141.
Hao, Yongjin et al. Synthesis and evaluation of dihydrofuro[2,3-b]pyridine derivatives as potent IRAK4 inhibitors. European journal of medicinal chemistry vol. 258 (2023): 115616.