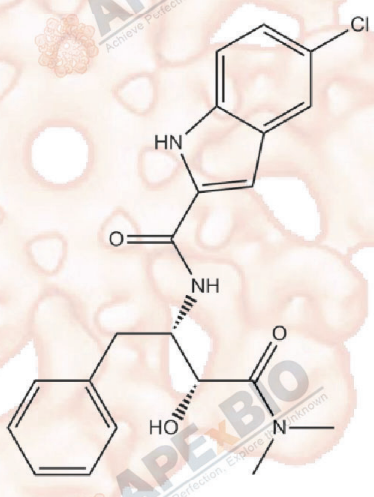
Product Data Sheet

CP-91149

Cat. No.: A8403
CAS No.: 186392-40-5
Formula: C21H22ClN3O3
M.Wt: 399.87
Synonyms:
Target: Metabolism
Pathway: Phospholipase
Storage: Store at -20°C



Solvent & Solubility

In Vitro

insoluble in H2O; ⩾16.4 mg/mL in DMSO; ⩾3.17 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.5008 mL	12.5041 mL	25.0081 mL
5 mM	0.5002 mL	2.5008 mL	5.0016 mL
10 mM	0.2501 mL	1.2504 mL	2.5008 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Selective inhibitor of glycogen phosphorylase
IC_{50} & Target	0.13 μM (GP)

In Vitro

Cell Viability Assay

Cell Line:	Hepatocytes from the liver of male Wistar rats.
Preparation method:	The solubility of this compound in DMSO > 16.4mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored

		below -20°C for several months.
	Reacting conditions:	2.5μm for 3h.
	Applications:	CP-91149 could inhibit phosphorylase potently and selectively which caused conversion of phosphorylase a to b in hepatocytes. Stimulation of glycogen synthesis by CP-91149 was due to dephosphorylation of phosphorylase a rather than inhibition of glycogen degradation or cycling.
In Vivo	**Animal experiment**	
	Animal models:	Diabetic male C57BL/6J-Lep(ob/ob) mice
	Dosage form:	oral dose of CP-91149 at 10, 25, and 50 mg/kg(effective at the latter two concentration)
	Applications:	In the diabetic male C57BL/6J-Lep(ob/ob) mice, glucose lowering by CP-91149 was statistically significant and it reached normoglycemia at 50 mg/kg. It could inhibit hepatic glycogenolysis and lower plasma glucose levels.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Barot S, Abo-Ali EM, et al. "Inhibition of glycogen catabolism induces intrinsic apoptosis and augments multikinase inhibitors in hepatocellular carcinoma cells." Exp Cell Res. 2019 Aug 15;381(2):288-300.PMID:31128107

See more customer validations on www.apexbt.com.

References

[1] Aiston S, Coghlan MP, Agius L. Inactivation of phosphorylase is a major component of the mechanism by which insulin stimulates hepatic glycogen synthesis. European journal of biochemistry / FEBS. 2003;270(13):2773-2781.
[2] Martin WH, Hoover DJ, Armento SJ, et al. Discovery of a human liver glycogen phosphorylase inhibitor that lowers blood glucose in vivo. Proceedings of the National Academy of Sciences of the United States of America. 1998;95(4):1776-1781.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com