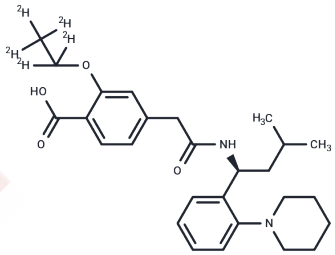
Data Sheet (Cat.No.T19548)

TargetMol

Repaglinide-D5

Chemical Properties



CAS No. : 1217709-85-7

Formula: C27H36N2O4

Molecular Weight: 457.62

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	Repaglinide-D5 is deuterium labeled Repaglinide. Repaglinide (T1088) is an insulin secretagogue for treatment type-2 diabetes mellitus.
Targets(IC50)	Potassium Channel
In vitro	Mouse insulinoma (MIN-6) cells were divided into 3 groups: low glucose, high glucose, and repaglinide 50 nm groups.?Cells and cell culture mediums were collected at different timepoints.?The expression of pericentrin (PCNT), F-actin, and insulin were tested with immunofluorescence and enzyme-linked immunosorbent assay.All glycemic parameters and variability indexes significantly decreased from baseline to 15 weeks, while no significant difference was found between these 2 groups at baseline or at 15 weeks.?Furthermore, there was no significant difference found in fasting insulin and postprandial insulin at baseline and at 15 weeks, while homeostasis model assessment β significantly increased.?The first-phase glucose and insulin secretion of the intravenous glucose tolerance test improved in both groups, especially in the repaglinide group.?Insulin, PCNT, and F-actin expression in MIN-6 cells decreased after 15 minutes of stimulation with repaglinide, while no difference was observed at 2, 6, and 12 hours.?The insulin levels of the cell medium in the repaglinide group remained significantly higher at all timepoints.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1852 mL	10.9261 mL	21.8522 mL
5 mM	0.437 mL	2.1852 mL	4.3704 mL
10 mM	0.2185 mL	1.0926 mL	2.1852 mL
50 mM	0.0437 mL	0.2185 mL	0.437 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

Wang LC, et al. Characteristics of repaglinide and its mechanism of action on insulin secretion in patients with newly diagnosed type-2 diabetes mellitus.Medicine (Baltimore). 2018 Sep;97(38):e12476.