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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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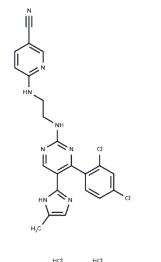
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Laduviglusib trihydrochloride

Chemical Properties

CAS No. :	1782235-14-6
Formula:	C ₂₂ H ₂₁ Cl ₅ N ₈
Molecular Weight:	574.72
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Laduviglusib trihydrochloride (CT99021 trihydrochloride) is a selective glycogen synthase kinase 3 (GSK-3) inhibitor with IC ₅₀ s of 10 nM and 6.7 nM for GSK-3 α and GSK-3 β . Laduviglusib trihydrochloride inhibits human GSK-3 β with a K _i of 9.8 nM. Laduviglusib trihydrochloride is an activator of Wnt/ β -catenin signaling. Laduviglusib trihydrochloride induces autophagy.
Targets(IC ₅₀)	GSK-3,Wnt/beta-catenin
In vitro	Laduviglusib trihydrochloride(10 μ M) lowers the viability of the ES-D3 cells by 24.7% at 2.5 μ M, 56.3% at 5 μ M, 61.9% at 7.5 μ M and 69.2% with an IC ₅₀ of 4.9 μ M[2]. Laduviglusib trihydrochloride shows >500-fold selectivity over ERK2, CDC2, and other protein kinases. Laduviglusib trihydrochloride specifically inhibits GSK3 β and GSK3 α with IC ₅₀ s of 5nM and 10nM in vitro kinase assays[4].
In vivo	Oral administration of Laduviglusib trihydrochloride(16 mg/kg and 48 mg/kg) rapidly reduces plasma glucose with a maximal reduction of nearly 150 mg/dl in ZDF rats[1]. Laduviglusib trihydrochloride enhances mouse and human embryonic stem cells self-renewal. Laduviglusib trihydrochloride (2 mg/kg) improves survival after 14.5 Gy abdominal irradiation. Laduviglusib trihydrochloride inhibits crypt apoptosis and accumulation of p-H2AX+ cells, and improves crypt regeneration and villus height. Laduviglusib trihydrochloride blocks apoptosis, increases Lgr5+ cell survival and prevents the reduction of Olfm4, Lgr5 and CD44[5].

Solubility Information

Solubility	H ₂ O: 17.1 mg/mL (29.8 mM),Sonication and heating are recommended. DMSO: 28.8 mg/mL (50.1 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.740 mL	8.6999 mL	17.3998 mL
5 mM	0.348 mL	1.740 mL	3.480 mL
10 mM	0.174 mL	0.870 mL	1.740 mL
50 mM	0.0348 mL	0.174 mL	0.348 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.

Reference

Ring DB, et al. Selective glycogen synthase kinase 3 inhibitors potentiate insulin activation of glucose transport and utilization in vitro and in vivo. Diabetes. 2003 Mar;52(3):588-95.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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