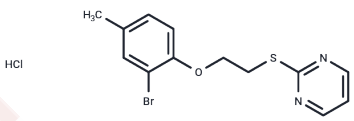
Data Sheet (Cat.No.T41162)

TargetMol

ZLN 024 hydrochloride

Chemical Properties



CAS No. : 1883548-91-1

Formula: C13H14BrClN2OS

Molecular Weight: 361.68

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	ZLN 024 hydrochloride is an AMPK allosteric activator and stimulates the inactive α1 subunit truncations α1 (1-394) and α1 (1-335) but not α1 (1-312).
Targets(IC50)	AMPK
In vitro	ZLN 024 hydrochloride increases the activity of α1β1γ1 by 1.5-fold and has an EC50 of 0.42 μM, and it increases the activity of α2β1γ1 by 1.7-fold with an EC50 of 0.95 μM. ZLN 024 hydrochloride also directly activates recombinant AMPK α1β2γ1, by 1.7-fold with an EC50 of 1.1 μM; and AMPK α2β2γ1, by 1.6-fold with an EC50 of 0.13 μM. ZLN 024 hydrochloride directly activates recombinant AMPK α1β1γ1 and its homolog α2β1γ1 in a concentration-dependent manner[1].
In vivo	In C57BKS db/db mice, ZLN 024 hydrochloride(15 mg/kg/day; oral) improves glucose tolerance after 4 weeks of treatment. ZLN 024 hydrochloride reduces the fasting blood glucose by 15%. Liver tissue weight, triacylglycerol and the total cholesterol content a

Solubility Information

Solubility	DMSO: 45 mg/mL (124.42 mM),Sonication is recommended. H2O: < 0.1 mg/mL (insoluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.53 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7649 mL	13.8244 mL	27.6488 mL
5 mM	0.553 mL	2.7649 mL	5.5298 mL
10 mM	0.2765 mL	1.3824 mL	2.7649 mL
50 mM	0.0553 mL	0.2765 mL	0.553 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 LN, et al. Novel small-molecule AMP-activated protein kinase allosteric activator with beneficial effects in db/db mice. PLoS One. 2013 Aug 20;8(8):e72092.