

Tilpisertib

Chemical Properties

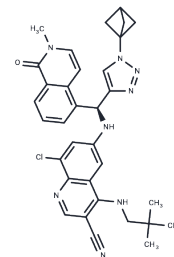
CAS No. : 2065153-41-3

Formula: C₃₃H₃₃ClN₈O

Molecular Weight: 593.13

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	Tilpisertib is a serine/threonine kinase inhibitor disclosed in patent WO2017007689, designed to modulate aberrant kinase-driven signaling pathways, and is used extensively in cancer biology and signal transduction research to investigate kinase-dependent cell proliferation, survival, and resistance mechanisms, supporting preclinical evaluation of targeted therapeutic strategies.
Targets(IC50)	Serine/threonin kinase
In vitro	In enzymatic assays, Tilpisertib inhibited TPL2 kinase activity with an IC ₅₀ of 1.3 nM, showing selectivity against other MAPKs. In primary human monocytes and dendritic cells stimulated by LPS or TNF- α , treatment with the compound blocked the TPL2-MEK-ERK axis and suppressed the secretion of pro-inflammatory cytokines including TNF- α , IL-1 β , IL-6, and IL-8 [1].
In vivo	In a rat model of acute inflammation induced by LPS, oral administration of Tilpisertib reduced serum TNF- α levels with an EC ₅₀ of 667 nM. In preclinical models of colitis, inhibition of TPL2 by the compound was associated with reduced tissue pERK levels and a lower inflammatory cytokine burden, leading to an amelioration of disease pathology in the colon [1].

Solubility Information

Solubility	DMSO: 100 mg/mL (168.6 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.686 mL	8.4299 mL	16.8597 mL
5 mM	0.3372 mL	1.686 mL	3.3719 mL
10 mM	0.1686 mL	0.843 mL	1.686 mL
50 mM	0.0337 mL	0.1686 mL	0.3372 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

Cot modulators and methods of use thereof. WO2017007689A1.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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