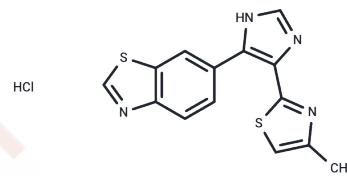


## TP0427736 hydrochloride

## Chemical Properties

CAS No. :	2459963-17-6
Formula:	C <sub>14</sub> H <sub>11</sub> ClN <sub>4</sub> S <sub>2</sub>
Molecular Weight:	334.85
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	TP0427736 hydrochloride is a novel and selective ALK5 inhibitor with an IC <sub>50</sub> of 2.72 nM, capable of inhibiting Smad2/3 phosphorylation in A549 cells, reducing TGF- $\beta$ -induced growth inhibition of human root sheath cells, and prolonging the anagen phase of mouse hair follicles.
Targets(IC <sub>50</sub> )	ALK,TGF-beta/Smad
In vitro	<b>Method:</b> 3T3-L1 cells overexpressing BMP8B were treated with TP0427736 hydrochloride (5 $\mu$ M), and the effect on intracellular lipid levels was observed. <b>Result:</b> TP0427736 hydrochloride effectively prevented the reduction of lipids in LV-Bmp8b cells. [1]

## Solubility Information

Solubility	DMSO: 1 mg/mL (2.99 mM),Sonication is recommended. H <sub>2</sub> O: 2 mg/mL (5.97 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	2.9864 mL	14.9321 mL	29.8641 mL
5 mM	0.5973 mL	2.9864 mL	5.9728 mL
10 mM	0.2986 mL	1.4932 mL	2.9864 mL
50 mM	0.0597 mL	0.2986 mL	0.5973 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

Zhong S, et al. BMP8B Activates Both SMAD2/3 and NF- $\kappa$ B Signals to Inhibit the Differentiation of 3T3-L1 Preadipocytes into Mature Adipocytes. *Nutrients*. 2023 Dec 25;16(1):64.

Du Y, et al. Sinomenine Ameliorates Liver Fibrosis by Blocking TGF- $\beta$ /SMAD and c-JUN Signaling. *Phytother Res*. 2025 Jun 1.

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