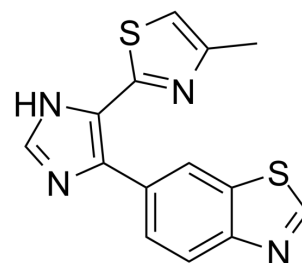


TP0427736 hydrochloride

Cat. No.:	HY-118528A		
CAS No.:	2459963-17-6		
Molecular Formula:	C ₁₄ H ₁₁ ClN ₄ S ₂		
Molecular Weight:	334.85		
Target:	TGF-β Receptor		
Pathway:	TGF-beta/Smad		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



H-Cl

SOLVENT & SOLUBILITY

In Vitro

H₂O : 3.33 mg/mL (9.94 mM; ultrasonic and warming and heat to 60°C)
 DMSO : 2 mg/mL (5.97 mM; ultrasonic and warming and heat to 60°C)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.9864 mL	14.9321 mL	29.8641 mL
	5 mM	0.5973 mL	2.9864 mL	5.9728 mL
	10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

TP0427736 hydrochloride is a potent inhibitor of ALK5 kinase activity with an IC₅₀ of 2.72 nM and this effect is 300-fold higher than the inhibitory effect on ALK3 (IC₅₀=836 nM). TP0427736 hydrochloride also inhibits Smad2/3 phosphorylation in A549 cells induced by TGF-β1 with an IC₅₀ value of 8.68 nM. TP0427736 hydrochloride can be used for the research of androgenic alopecia (AGA)^[1].

REFERENCES

[1]. Takumi Naruse, et al. Novel ALK5 inhibitor TP0427736 reduces TGF-β induced growth inhibition in human outer root sheath cells and elongates anagen phase in mouse hair follicles. Pharmacol Rep. 2017 May;69(3):485-491.

Caution: Product has not been fully validated for medical applications. For research use only.

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