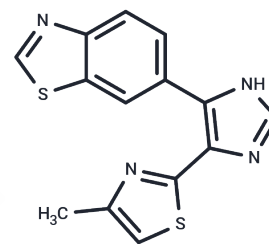


TP0427736

## Chemical Properties

CAS No. : 864374-00-5  
 Formula: C<sub>14</sub>H<sub>10</sub>N<sub>4</sub>S<sub>2</sub>  
 Molecular Weight: 298.39  
 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	TP0427736 is a potent and selective inhibitor of ALK5 with an IC <sub>50</sub> of 2.72 nM, 300-fold higher than the inhibitory effect on ALK3. TP0427736 reduces TGF-β-induced growth inhibition in human outer root sheath cells and elongates the anagen phase in mouse hair follicles.
Targets(IC <sub>50</sub> )	TGF-beta/Smad

## Solubility Information

Solubility	DMSO: 65 mg/mL (217.84 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	3.3513 mL	16.7566 mL	33.5132 mL
5 mM	0.6703 mL	3.3513 mL	6.7026 mL
10 mM	0.3351 mL	1.6757 mL	3.3513 mL
50 mM	0.067 mL	0.3351 mL	0.6703 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

- Naruse T, et al. Novel ALK5 inhibitor TP0427736 reduces TGF- $\beta$ -induced growth inhibition in human outer root sheath cells and elongates anagen phase in mouse hair follicles. *Pharmacol Rep.* 2017 Jun;69(3):485-491.
- Amada H, et al. Discovery of 7-methoxy-6-[4-(4-methyl-1,3-thiazol-2-yl)-1H-imidazol-5-yl]-1,3-benzothiazole (TASP0382088): a potent and selective transforming growth factor- $\beta$  type I receptor inhibitor as a topical drug for alopecia. *Chem Pharm Bull (Tokyo).* 2013;61(3):286-91.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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