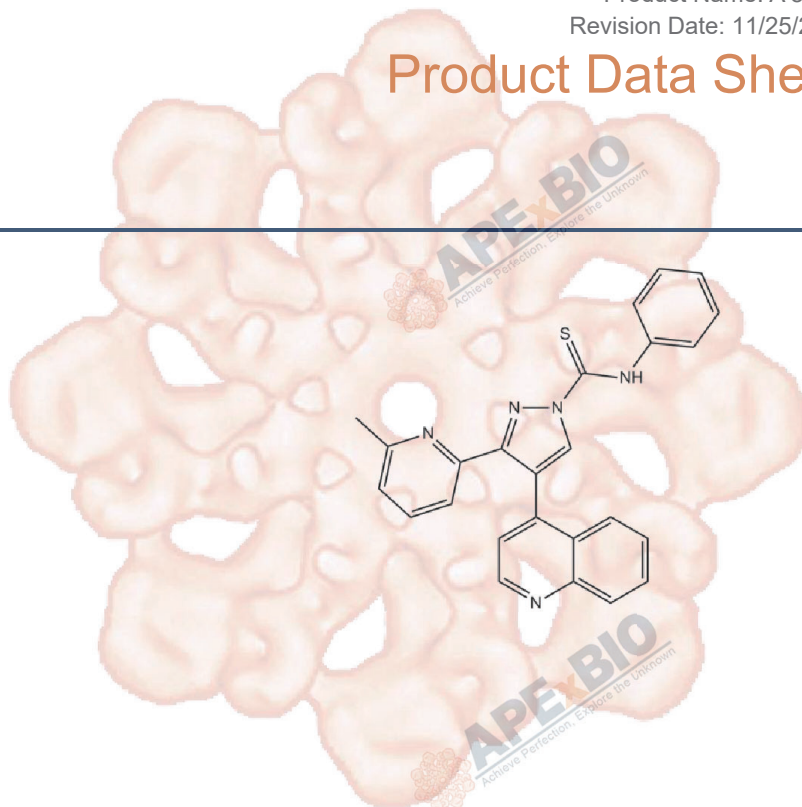


## Product Data Sheet

### A 83-01

<b>Cat. No.:</b>	A3133
<b>CAS No.:</b>	909910-43-6
<b>Formula:</b>	C25H19N5S
<b>M.Wt:</b>	421.52
<b>Synonyms:</b>	A83-01; A-83-01
<b>Target:</b>	TGF-β / Smad Signaling
<b>Pathway:</b>	TGF-βR1(ALK5)
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥21.1 mg/mL in DMSO; insoluble in H<sub>2</sub>O; ≥9.82 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.3724 mL	11.8618 mL	23.7237 mL
	<b>5 mM</b>	0.4745 mL	2.3724 mL	4.7447 mL
	<b>10 mM</b>	0.2372 mL	1.1862 mL	2.3724 mL

Please refer to the solubility information to select the appropriate solvent

### Biological Activity

Shortsummary

ALK-5 inhibitor

IC<sub>50</sub> & Target

12 nM (ALK5), 45 nM (ALK4), 7.5 nM (ALK7)

In Vitro

#### Cell Viability Assay

Cell Line: Mv1Lu and C2C12 cells

Preparation method:

The solubility of this compound in DMSO is > 21.1 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

Reacting conditions:

0.01 ~ 10 μM; 1 hr

	Applications:	In Mv1Lu cells, A-83-01 reduced the level of TGF- $\beta$ -induced transcription in a concentration-dependent manner, with the IC50 value of 25 nM. On the other hand, for BMP-induced transcriptional activity in C2C12 cells, A-83-01 showed no effect at the dose of 1 $\mu$ M. However, at the concentrations over 3 $\mu$ M, A-83-01 slightly suppressed the transcriptional activity induced by BMP4.
In Vivo	<b>Animal experiment</b>	
	Applications:	

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

[1]. Tojo M, Hamashima Y, Hanyu A, et al. The ALK-5 inhibitor A-83-01 inhibits Smad signaling and epithelial-to-mesenchymal transition by transforming growth factor- $\beta$ . Cancer science, 2005, 96(11): 791-800.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

**APEX BIO Technology**

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