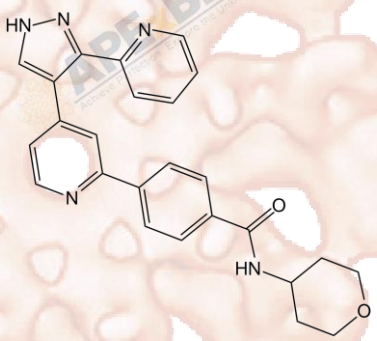
Product Data Sheet

GW788388



Cat. No.:	A8301
CAS No.:	452342-67-5
Formula:	C25H23N5O2
M.Wt:	425.49
Synonyms:	
Target:	TGF-β / Smad Signaling
Pathway:	TGF-βR1(ALK5)
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

≥21.25 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.3502 mL	11.7512 mL	23.5023 mL
5 mM	0.4700 mL	2.3502 mL	4.7005 mL
10 mM	0.2350 mL	1.1751 mL	2.3502 mL

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

Biological Activity

Shortsummary	ALK5 inhibitor,potent and selective
IC_{50} & Target	18 nM (ALK5)

In Vitro

Cell Viability Assay

Cell Line:	NMuMG and MDA-MD-231 cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. 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:	1, 2.5, 5 or 10 μM; 1 hr

	Applications:	In NMuMG and MDA-MD-231 cells, GW788388 dose-dependently inhibited TGF-β-induced Smad2 phosphorylation. In addition, TGF-β-mediated Smad1/5 phosphorylation, which requires ALK5 and TbRII, was also inhibited by GW788388.
In Vivo	**Animal experiment**	
	Animal models:	A db/db mouse model of spontaneous diabetic nephropathy
	Dosage form:	2 mg/kg/day; p.o.; for 5 weeks
	Applications:	In a db/db mouse model of spontaneous diabetic nephropathy, GW788388 significantly reduced collagen deposits, substantially improved glomerulopathy (marked by mesangial matrix expansion, mesangial hypertrophy, proliferation, and glomerular basement membrane thickening), as well as decreased urinary albumin concentrations.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Petersen, M., et al., Oral administration of GW788388, an inhibitor of TGF-beta type I and II receptor kinases, decreases renal fibrosis. Kidney Int, 2008. 73(6): p. 705-15.

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 APExBIO 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.

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