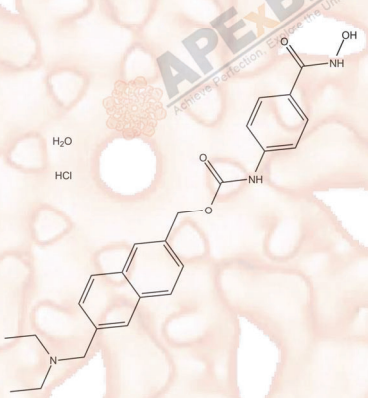
Product Data Sheet

ITF2357 (Givinostat)

Cat. No.:	A4093
CAS No.:	732302-99-7
Formula:	C24H27N3O4·HCl·H2O
M.Wt:	475.97
Synonyms:	ITF-2357
Target:	DNA Damage/DNA Repair
Pathway:	HDAC
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

≥23.8 mg/mL in DMSO,insoluble in EtOH, ≥2.9 mg/mL in H2O with ultrasonic and warming

Preparing Stock Solutions

Concentration \ Mass	1mg	5mg	10mg
1 mM	2.1010 mL	10.5049 mL	21.0097 mL
5 mM	0.4202 mL	2.1010 mL	4.2019 mL
10 mM	0.2101 mL	1.0505 mL	2.1010 mL

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

Biological Activity

Shortsummary	HDAC inhibitor
IC_{50} & Target	7.5 to 16 nM (HDAC)

In Vitro

Cell Viability Assay

Cell Line:	PBMC 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:	100 nM, 24 hours for hyperacetylation
Applications:	To test the acetylation ability of ITF2357, rested PBMCs were preincubated

		with the inhibitor for 1 h at 37° C and then stimulated with LPS. After 3, 6, and 24 h, extracts of the cell pellets were made and the acetylated lysines were determined in total cellular extracts. After 3 h of incubation with LPS in the presence of ITF2357, hyperacetylation is clearly present. However, a greater duration of hyperacetylation up to 24 h was observed in cells exposed to ITF2357.
In Vivo	**Animal experiment**	
	Animal models:	BALB/C and C57BL/6 mice
	Dosage form:	Gavage, 5 mg/kg (BALB/C mice) Gavage, 1 or 10 mg/kg (C57BL/6 mice)
	Applications:	Mice were given 100 μL water or ITF2357 (5 mg/kg) by gavage and, after 1 h, injected intravenously with 200 μg/mouse of ConA. Mice were bled 24 h later for evaluation of serum ALT levels. ITF2357 pretreatment reduced more than 80% of the ALT levels. A dose of 1 mg/kg ITF2357 was as effective as a dose of 10 mg/kg in reducing ConA hepatitis as measured by ALT levels.
	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

1.Topper MJ, Vaz M, et al. "Epigenetic Therapy Ties MYCDepletion to Reversing Immune Evasion and Treating Lung Cancer." Cell. 2017 Nov30;171(6):1284-1300.e21.PMID:29195073

2.Bagnall NH, Hines BM, et al."Insecticidal activities of histone deacetylase inhibitors against a dipteranparasite of sheep, Lucilia cuprina." Int J Parasitol Drugs Drug Resist. 2017Apr;7(1):51-60.PMID:28110187

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References

[1] Leoni F, Fossati G, Lewis E C, et al. The histone deacetylase inhibitor ITF2357 reduces production of pro-inflammatory cytokines in vitro and systemic inflammation in vivo. Molecular Medicine, 2005, 11(1-12): 1.

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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