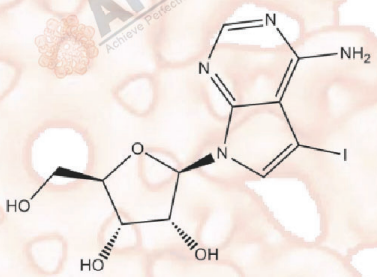
Product Data Sheet

5-Iodotubercidin

Cat. No.:	A3125
CAS No.:	24386-93-4
Formula:	C11H13IN4O4
M.Wt:	392.15
Synonyms:	NSC 113939; 5-ITu
Target:	GPCR/G protein
Pathway:	Adenosine Kinase
Storage:	Store at -20°C



Solvent & Solubility

In Vitro

≥83 mg/mL in DMSO; insoluble in H2O; insoluble in EtOH

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	2.5500 mL	12.7502 mL	25.5004 mL
5 mM	0.5100 mL	2.5500 mL	5.1001 mL
10 mM	0.2550 mL	1.2750 mL	2.5500 mL

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

Biological Activity

Shortsummary	Adenosine kinase inhibitor,potent
IC_{50} & Target	26 nM (adenosine kinase), 7 μM (uridine), 15 μM (formycin B)

In Vitro

Cell Viability Assay

Cell Line:	MEFs and HCT116 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:	0 ~ 2.5 μM; 8 hrs

	Applications:	In both MEFs and HCT116 cells, 5-Iodotubercidin up-regulated p53 expression. Moreover, dosage experiments indicated that 5-Iodotubercidin was able to up-regulate p53 expression at the concentration as low as 0.25 μM. In HCT116 cells with ADK knocked out, the decrease of ADK levels did not significantly change the protein levels of p53, which indicated that 5-Iodotubercidin-induced p53 upregulation was not contributed to direct inhibition of ADK.
In Vivo	**Animal experiment**	
	Animal models:	Nude mice bearing HCT116 cells
	Dosage form:	0.625 or 2.5 mg/kg; i.p.
	Applications:	In nude mice bearing HCT116 cells, 5-Iodotubercidin at 2.5 mg/kg induced rapid tumor regression. However, 5-Iodotubercidin treatment also decreased the body weight of mice (a reduction of 6% at the end of treatment). Moreover, 5-Iodotubercidin showed inhibition on p53-/- HCT116-initiated tumors as well. At a lower dose of 0.625 mg/kg, 5-Iodotubercidin still showed an inhibition effect on tumor growth but p53-/- HCT116 exhibited resistance to 5-Iodotubercidin.
	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]. Xin Zhang, Deyong Jia, Huijuan Liu, et al. Identification of 5-Iodotubercidin as a Genotoxic Drug with Anti-Cancer Potential. PLOS ONE, 2013, 8(5):e62527.

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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