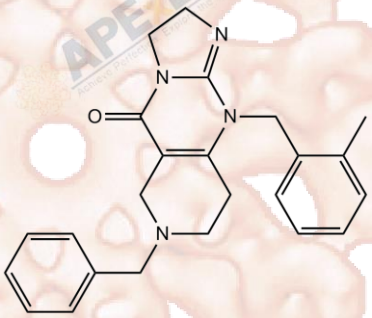
Product Data Sheet

TIC10



Cat. No.:	A8619
CAS No.:	41276-02-2
Formula:	C24H26N4O
M.Wt:	386.49
Synonyms:	
Target:	PI3K/Akt/mTOR Signaling
Pathway:	Akt
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾2.34 mg/mL in EtOH with gentle warming; ⩾6.43 mg/mL in DMSO with gentle warming

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.5874 mL	12.9369 mL	25.8739 mL
5 mM	0.5175 mL	2.5874 mL	5.1748 mL
10 mM	0.2587 mL	1.2937 mL	2.5874 mL

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

Biological Activity

Shortsummary	Potent Akt/ERK inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	HCT116 Bax-/- and HCT116 p53-/- 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:	1.25, 2.5, 5 and 10 μM; 24, 48 or 72 hours

	Applications:	In TRAIL-sensitive HCT116 p53-/- cells, TIC10 induced an increase in sub-G1 DNA content suggestive of cell death in a p53-independent and Bax-dependent manner. In TRAIL-resistant Bax-null HCT116 human colon cancer cells, TIC10 (10 μM, 72 h) dose-dependently increased TRAIL mRNA and induced TRAIL protein localization on the cell surface in a p53-independent manner.
In Vivo	**Animal experiment**	
	Animal models:	Female athymic nu/nu mice subcutaneous xenografted with HCT116 p53-/- tumor and MDA-MB-231 human triple-negative breast cancer.
	Dosage form:	50, 80 or 100 mg/kg; intraperitoneal injection; administered on days 0, 3, and 6
	Applications:	In mice bearing the HCT116 p53-/- xenograft, TIC10 caused tumor regression. TIC10 also induced regression of MDA-MB-231 human triple-negative breast cancer xenografts.
	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] Allen JE, Krigsfeld G, Mayes PA et al. Dual inactivation of Akt and ERK by TIC10 signals Foxo3a nuclear translocation, TRAIL gene induction, and potent antitumor effects. Sci Transl Med. 2013 Feb 6;5(171):171ra17.

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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