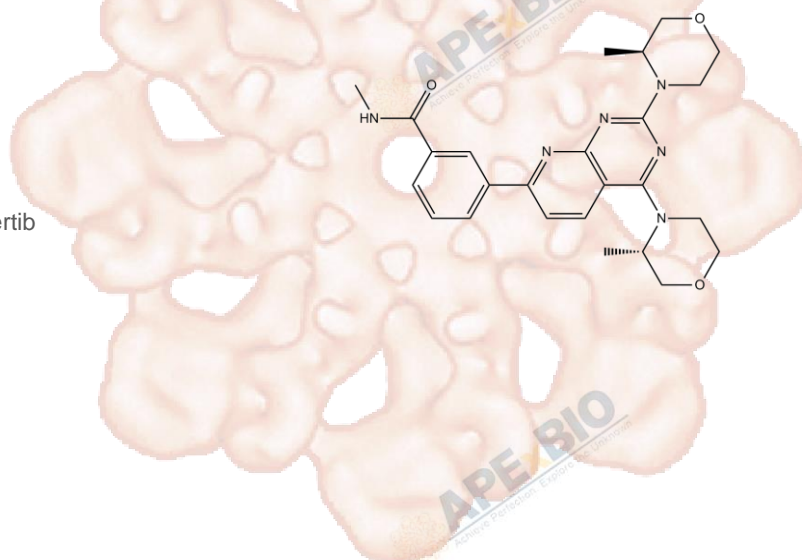


Product Data Sheet

AZD2014

Cat. No.:	A8373
CAS No.:	1009298-59-2
Formula:	C ₂₅ H ₃₀ N ₆ O ₃
M.Wt:	462.54
Synonyms:	AZD 2014;AZD-2014;Vistusertib
Target:	PI3K/Akt/mTOR Signaling
Pathway:	mTOR
Storage:	Store at -20°C



Solvent & Solubility

≥23.15 mg/mL in DMSO; insoluble in H₂O; ≥4.81 mg/mL in EtOH with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.1620 mL	10.8099 mL	21.6198 mL
	5 mM		0.4324 mL	2.1620 mL	4.3240 mL
	10 mM		0.2162 mL	1.0810 mL	2.1620 mL

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

Biological Activity

Shortsummary

Novel mTOR inhibitor

IC₅₀ & Target

2.8 nM (mTOR), 80 nM (P-Akt (S473)), 200 nM (pS6 (S235/236))

In Vitro

Cell Viability Assay

Cell Line:	HCCLM3, Huh-7, SMMC-7721 and HepG2 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:	10 nM ~ 20 mM; 72 hrs

	Applications:	In 4 selected HCC cell lines, AZD2014 exhibited a more profound antiproliferative activity than Rapamycin, with the IC50 values of 101, 441, 141 and 600 nM, respectively. SMMC-7721 cells were resistant to Rapamycin (even at a high concentration of 20 μ M), but were highly sensitive to AZD2014 (141 nM).
In Vivo	Animal experiment	
	Applications:	

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Dramatic antitumor effects of the dual mTORC1 and mTORC2 inhibitor AZD2014 in hepatocellular carcinoma. Am J Cancer Res. 2014 Dec 15;5(1):125-39. eCollection 2015.

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.

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