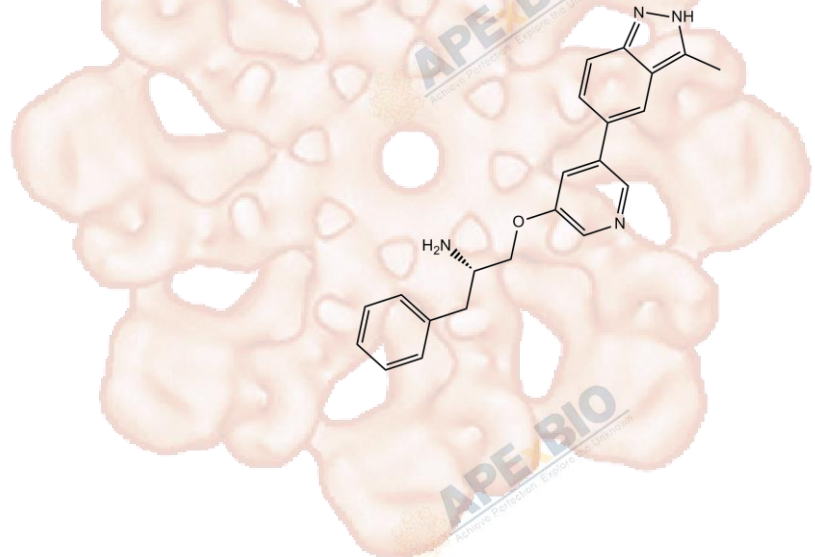


Product Data Sheet

A-674563

Cat. No.:	A8616
CAS No.:	552325-73-2
Formula:	C ₂₂ H ₂₂ N ₄ O
M.Wt:	358.44
Synonyms:	
Target:	PI3K/Akt/mTOR Signaling
Pathway:	Akt
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; ≥ 23.8 mg/mL in H₂O; ≥ 4.9 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.7899 mL	13.9493 mL	27.8987 mL
	5 mM		0.5580 mL	2.7899 mL	5.5797 mL
	10 mM		0.2790 mL	1.3949 mL	2.7899 mL

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

Biological Activity

Shortsummary

Akt1/PKA/CDK2 inhibitor,potent and selective

IC₅₀ & Target

11 nM(Ki) (Akt1), 16 nM(Ki) (PKA), 46 nM(Ki) (CDK2), 110 nM(Ki) (GSK-3 β), 260 nM(Ki) (ERK2)

In Vitro

Cell Viability Assay

Cell Line:	soft tissue sarcoma (STS) cell lines
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:	0-10 μ M; 24, 48, and 72 h

	Applications:	In STS cell lines, A-674563 significantly decreased GSK3 and MDM2 phosphorylation in a dose-dependent way. A-674563 induced growth inhibition in a dose-dependent and time-dependent manner, and induced G2 cell cycle arrest and apoptosis.
In Vivo	Animal experiment	
	Animal models:	Mice with human fibrosarcoma (HT1080) subcutaneous xenografts
	Dosage form:	20 mg/kg/bid, p.o.
	Applications:	In mice with human fibrosarcoma (HT1080) subcutaneous xenografts, A-674563 inhibited tumor growth and significantly reduced tumor volume at the termination of the study (320.76 ± 86.8) compared with that in control group (667.92 ± 97.41 ; $P < 0.01$).
	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] Zhu QS, Ren W, Korchin B et al. Soft tissue sarcoma cells are highly sensitive to AKT blockade: a role for p53-independent up-regulation of GADD45 alpha. *Cancer Res.* 2008 Apr 15;68(8):2895-903.

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. Short-term 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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