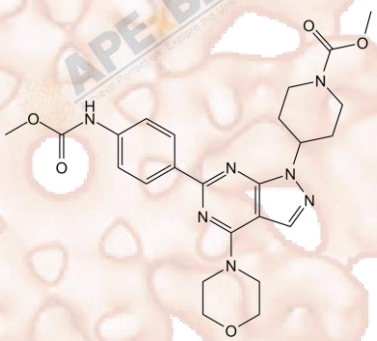
Product Data Sheet

WYE-354

Cat. No.: A1266
CAS No.: 1062169-56-5
Formula: C24H29N7O5
M.Wt: 495.53
Synonyms:
Target: PI3K/Akt/mTOR Signaling
Pathway: mTOR
Storage: Store at -20°C



Solvent & Solubility

In Vitro

≥49.6 mg/mL in DMSO; insoluble in H2O; insoluble in EtOH

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.0180 mL	10.0902 mL	20.1804 mL
5 mM	0.4036 mL	2.0180 mL	4.0361 mL
10 mM	0.2018 mL	1.0090 mL	2.0180 mL

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

Biological Activity

Shortsummary	MTOR inhibitor,potent,ATP-competitive and cell-permeable
IC_{50} & Target	4.3 nM (mTOR)

In Vitro

Cell Viability Assay

Cell Line:	HEK293 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 h; 5 μM

	Applications:	To test directly the inhibition of mTORC2 catalytic activity in vitro, we immunoprecipitated mTORC2 and mTORC1 from HEK293 cells and performed immune-complex kinase assay of the mTORC2-specific substrate His6-AKT or the mTORC1 substrate His6-S6K. AKT (S473) phosphorylation was dose dependently inhibited by WYE-354.
In Vivo	**Animal experiment**	
	Animal models:	BALB/c nu/nu female mice
	Dosage form:	50 mg/kg; intraperitoneal injection
	Applications:	Nude mice bearing the PTEN-null PC3MM2 tumors were administered i.p. with vehicle or 50 mg/kg WYE-354.Tumor lysates prepared at 1, 2, 4, and 6 hours after dosing were immunoblotted for levels of P-S6K(T389), P-AKT(S473), and P-AKT(T308). Quantification of the immunoblotting results indicated that WYE-354 completely inhibited P-S6K (T389) for at least 6 hours and substantially inhibited P-AKT(S473) for 6 hour. As expected, P-AKT(T308) in the same tumors was variably but not significantly inhibited. WYE-354 selectively inhibited P-AKT(S473) via targeting mTORC2.
	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] Yu K, Toral-Barza L, Shi C, et al. Biochemical, cellular, and in vivo activity of novel ATP-competitive and selective inhibitors of the mammalian target of rapamycin[J]. Cancer research, 2009, 69(15): 6232-6240.

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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