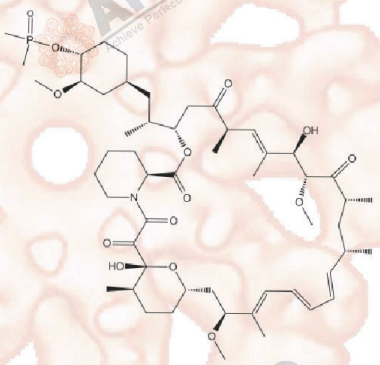
Product Data Sheet

Ridaforolimus (Deforolimus, MK-8669)

Cat. No.: B1639
CAS No.: 572924-54-0
Formula: C53H84NO14P
M.Wt: 990.21
Synonyms:
Target: PI3K/Akt/mTOR Signaling
Pathway: mTOR
Storage: Store at -20°C



Solvent & Solubility

In Vitro

≥49.5 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	1.0099 mL	5.0494 mL	10.0989 mL
5 mM	0.2020 mL	1.0099 mL	2.0198 mL
10 mM	0.1010 mL	0.5049 mL	1.0099 mL

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

Biological Activity

Shortsummary	MTOR inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	HCT-116, SK-UT-1, HT-1080, SW872, MCF7, SK-LMS-1, U-87, A-204, PC-3, Endothelial cells, SK-UT-1B, ARK1 and ARK2 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:	100 nmol/L for 24-72 hours; or 10–100 nM for 24 h.
	Applications:	Ridaforolimus showed the broad inhibitory effects on cell growth, division, metabolism, and angiogenesis and attenuated mTOR signaling [1]. Moreover, Ridaforolimus (20–100 nM) treatment decreased the viability in ARK1 and ARK2 cells [2].
In Vivo	**Animal experiment**	
	Animal models:	Female C57bl/6 and BALB/c mice model; male and female athymic NCr-nu mice model; mice harboring uterine serous carcinoma (USC) xenografts
	Dosage form:	3 or 10 mg/kg, i.p. daily for 5 days every other week or once weekly for 20 days; or 1 mg/kg, i.p. for 22 days
	Applications:	Ridaforolimus induced tumor growth inhibition in mice bearing PC-3 (prostate), HCT-116 (colon), MCF7 (breast), PANC-1 (pancreas), SK-LMS-1 (sarcoma) or A549 (lung) xenografts [1]. Moreover, Ridaforolimus improved the anti-tumor activity of dual HER2 blockade in mice harboring uterine serous carcinoma (USC) xenografts [2].
	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. Rivera, V. M., Squillace, R. M., Miller, D., Berk, L., Wardwell, S. D., Ning, Y., Pollock, R., Narasimhan, N. I., Iuliucci, J. D., Wang, F. and Clackson, T. (2011) Ridaforolimus (AP23573; MK-8669), a potent mTOR inhibitor, has broad antitumor activity and can be optimally administered using intermittent dosing regimens. Mol Cancer Ther. 10, 1059-1071

2. Hernandez, S. F., Chisholm, S., Borger, D., Foster, R., Rueda, B. R. and Growdon, W. B. (2016) Ridaforolimus improves the anti-tumor activity of dual HER2 blockade in uterine serous carcinoma in vivo models with HER2 gene amplification and PIK3CA mutation. Gynecol Oncol. 141, 570-579

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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