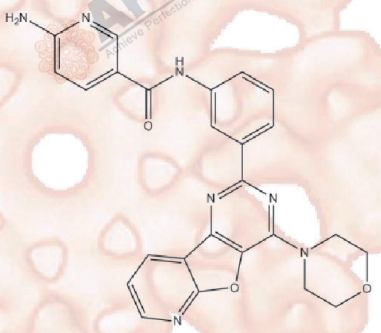
Product Data Sheet

YM201636



Cat. No.:	B2189
CAS No.:	371942-69-7
Formula:	C25H21N7O3
M.Wt:	467.48
Synonyms:	
Target:	PI3K/Akt/mTOR Signaling
Pathway:	PIKfyve
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; insoluble in EtOH; ≥11.68 mg/mL in DMSO

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	2.1391 mL	10.6956 mL	21.3913 mL
5 mM	0.4278 mL	2.1391 mL	4.2783 mL
10 mM	0.2139 mL	1.0696 mL	2.1391 mL

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

Biological Activity

Shortsummary	PIKfyve inhibitor,potent and selective
IC_{50} & Target	33 nM (PIKfyve), 3.3 μM (p110α)

In Vitro

Cell Viability Assay

Cell Line:	Mouse 3T3L1 adipocytes, NIH3T3 cells
Preparation method:	The solubility of this compound in DMSO is >11.7mg/mL. 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:	0-4 μM for 30 min or 800 nM for 2h

	Applications:	In mouse 3T3L1 adipocytes, YM201636 significantly inhibited both basal and insulin-activated 2DG uptake in a dose-dependent way. YM201636 (160 nM) nearly completely inhibited the net insulin effect with a 50% inhibition at 54 ± 4 nM. YM201636 at 800 nM produced a 45% inhibition of cell surface HA-GLUT4-eGFP accumulation and a 55% inhibition of Akt-Ser473 phosphorylation. In NIH3T3 cells, YM201636 at 800 nM decreased PtdIns(3,5)P2 production by 80%. YM201636 induced the vesiculation phenotype by affecting PIKfyve and PtdIns(3,5)P2 production.
In Vivo	**Animal experiment**	
	Applications:	

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Jefferies H B J, Cooke F T, Jat P, et al. A selective PIKfyve inhibitor blocks PtdIns (3, 5) P2 production and disrupts endomembrane transport and retroviral budding. EMBO reports, 2008, 9(2): 164-170.

[2]. Ikonomov O C, Sbrissa D, Shisheva A. YM201636, an inhibitor of retroviral budding and PIKfyve-catalyzed PtdIns (3, 5) P2synthesis, halts glucose entry by insulin in adipocytes. Biochemical and biophysical research communications, 2009, 382(3): 566-570.

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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