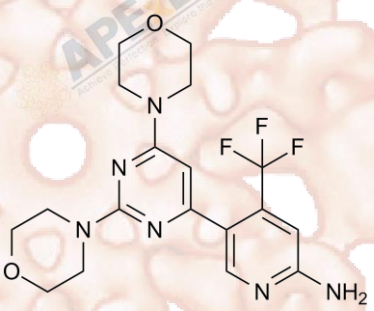
Product Data Sheet

BKM120



Cat. No.:	A3015
CAS No.:	944396-07-0
Formula:	C18H21F3N6O2
M.Wt:	410.39
Synonyms:	BKM-120,Buparlisib,BKM 120,NVP-BKM120,NVP-BKM-120
Target:	PI3K/Akt/mTOR Signaling
Pathway:	PI3K
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

⩾20.52 mg/mL in DMSO; insoluble in H2O; ⩾11.36 mg/mL in EtOH with ultrasonic

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.4367 mL	12.1835 mL	24.3671 mL
5 mM	0.4873 mL	2.4367 mL	4.8734 mL
10 mM	0.2437 mL	1.2184 mL	2.4367 mL

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

Biological Activity

Shortsummary	Inhibitor of pan-Class I PI3K
IC_{50} & Target	52-99 nM (p110α), 166 nM (p110β), 116 nM (p110δ), 262 nM (p110γ)

In Vitro

Cell Viability Assay

Cell Line:	MM cell lines (RPMI-8226, OPM1, MM.1S, OPM2 and H929)
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:	IC50: 0.5-1μM, 48 hours
	Applications:	The effect of the pan-PI3K inhibition, mediated by increased concentrations of buparlisib on MM cell survival was tested by MTT assay. Buparlisib induced cell toxicity after 48 hr treatment in all MM cell lines tested; with an IC50 between 0.5 and 1 μM. In addition, buparlisib decreased the activation of signaling proteins downstream of PI3K including pAkt, pS6R, pP70S6K, and p-mTOR in MM.1S cells in a dose dependent manner.
In Vivo	**Animal experiment**	
	Animal models:	Female SCID-Bg mice injected with MM.1S-GFP+/luc+ cells
	Dosage form:	Oral administration, 50 mg/kg, once a day for 5 weeks
	Applications:	Treatment of mice with buparlisib significantly decreased the rate of tumor progression compared with the vehicle treated group, as shown in representative images of the BLI and quantification of the BLI. These results were further confirmed by fluorescence microscopy, showing that the number of MM.1S- GFP+/luc+ cells present in the BM of mice treated with buparlisib decreased significantly compared with those present in the BM of mice treated with vehicle, as shown in representative images of immunofluorescence.
	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

1. Peng T, Dou QP. "Everolimus Inhibits Growth of Gemcitabine-Resistant PancreaticCancer Cells via Induction of Caspase-Dependent Apoptosis and G(2) /M Arrest." JCell Biochem. 2017 Feb 6.PMID:28165150

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References

[1] Sahin I, Azab F, Mishima Y, Moschetta M, Tsang B, Glavey SV, Manier S, Zhang Y, Sacco A, Roccaro AM, Azab AK, Ghobrial IM. Targeting survival and cell trafficking in multiple myeloma and Waldenstrom macroglobulinemia using pan-class I PI3K inhibitor, buparlisib. Am J Hematol. 2014 Jul 24.

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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