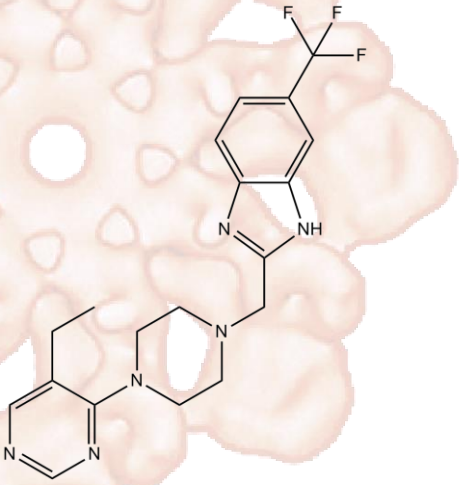
Product Name: PF-4708671
Revision Date: 01/10/2021

Product Data Sheet

PF-4708671



Cat. No.:	B2228
CAS No.:	1255517-76-0
Formula:	C19H21F3N6
M.Wt:	390.41
Synonyms:	
Target:	PI3K/Akt/mTOR Signaling
Pathway:	S6 Kinase
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

≥37.8 mg/mL in DMSO; ≥17.13 mg/mL in EtOH; insoluble in H2O

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.5614 mL	12.8070 mL	25.6141 mL
5 mM	0.5123 mL	2.5614 mL	5.1228 mL
10 mM	0.2561 mL	1.2807 mL	2.5614 mL

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

Biological Activity

Shortsummary	P70 S6K1 isoform inhibitor,cell-permeable
IC_{50} & Target	160 nM (Ki=20 nM) (p70 S6K1)

In Vitro

Cell Viability Assay

Cell Line:	HEK-293 cells, A549, SK-MES-1 and NCI-H460 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:	0.1-10 μM for 16-72 h
	Applications:	PF-4708671 inhibited S6K1 activity and induced S6K1 phosphorylation in HEK-293 cells [1]. Moreover, PF-4708671 significantly inhibited cell proliferation and invasion ability in A549, SK-MES-1 and NCI-H460 cells in vitro, resulting in cell cycle arrest in G0-G1 phase [2].
In Vivo	**Animal experiment**	
	Animal models:	Nude mouse xenograft model
	Dosage form:	50 mg/kg; intraperitoneal administration, daily for 1 week;
	Applications:	PF-4708671 inhibited tumor growth in a nude mouse xenograft model established with H460 cells in vivo.
	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. Jafari N, Zheng Q, et al. "p70S6K1 (S6K1)-mediated Phosphorylation Regulates Phosphatidylinositol 4-Phosphate 5-Kinase Type I γ Degradation and Cell Invasion." J Biol Chem. 2016 Dec2;291(49):25729-25741.PMID:27780861

See more customer validations on www.apexbt.com.

References

1. Pearce, L. R., Alton, G. R., Richter, D. T., Kath, J. C., Lingardo, L., Chapman, J., Hwang, C. and Alessi, D. R. (2010) Characterization of PF-4708671, a novel and highly specific inhibitor of p70 ribosomal S6 kinase (S6K1). Biochem J. 431, 245-255
2. Qiu, Z. X., Sun, R. F., Mo, X. M. and Li, W. M. (2016) The p70S6K Specific Inhibitor PF-4708671 Impedes Non-Small Cell Lung Cancer Growth. PLoS One. 11, e0147185

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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