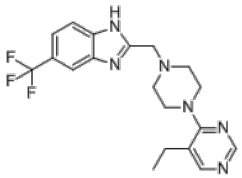
ProbeChem®
Expedite Your Scientific Research

Data Sheet

WWW.PROBECHEM.COM

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name : PF-4708671
Cat. No. : PC-49024
CAS No. : 1255517-76-0
Molecular Formula : $C_{19}H_{21}F_3N_6$
Molecular Weight : 390.414
Target : Ribosomal S6 Kinase (RSK)
Solubility : 10 mM in DMSO



Biological Activity

PF-4708671 is a potent, specific, cell-permeable inhibitor of **S6K1 (p70 ribosomal S6 kinase 1)**, inhibits the activity of full-length S6K1 in vitro with Ki of 20 nM, and S6K1 isolated from IGF1-stimulated HEK293 cells with IC50 of 160 nM.
PF-4708671 only inhibited very weakly the closely related S6K2 isoform (IC50=56 μM), as well as RSK1 (IC50=4.7 μM) and RSK2 (IC50=9.2 μM) over 20-fold less potently than S6K1.
PF-4708671 prevents the S6K1-mediated phosphorylation of S6 protein in response to IGF-1, while having no effect upon the PMA-induced phosphorylation of substrates of the highly related RSK (p90 ribosomal S6 kinase) and MSK (mitogen- and stress-activated kinase) kinases.
PF-4708671 enhances glucose deprivation-induced cell death via downregulation of anti-apoptotic proteins in MCF-7 breast cancer cells.
PF-4708671 inhibits cell migration in a model of metastasis of triple-negative breast cancer.

References

Pearce LR, et al. ***Biochem J.*** 2010 Oct 15;431(2):245-55.

Rosner M, et al. ***Amino Acids.*** 2012 Jun;42(6):2251-6.

Parker WE, et al. ***Sci Transl Med.*** 2013 Apr 24;5(182):182ra53.

Choi HN, et al. ***Biochem Biophys Res Commun.*** 2013 Mar 1;432(1):123-8.

E-mail: tech@probechem.com