

PF-4708671

Catalog No: tcsc1739



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

1255517-76-0

Formula:

$C_{19}H_{21}F_3N_6$

Pathway:

MAPK/ERK Pathway

Target:

Ribosomal S6 Kinase (RSK)

Purity / Grade:

>98%

Solubility:

DMSO : 33.33 mg/mL (85.37 mM; Need ultrasonic)

Observed Molecular Weight:

390.41

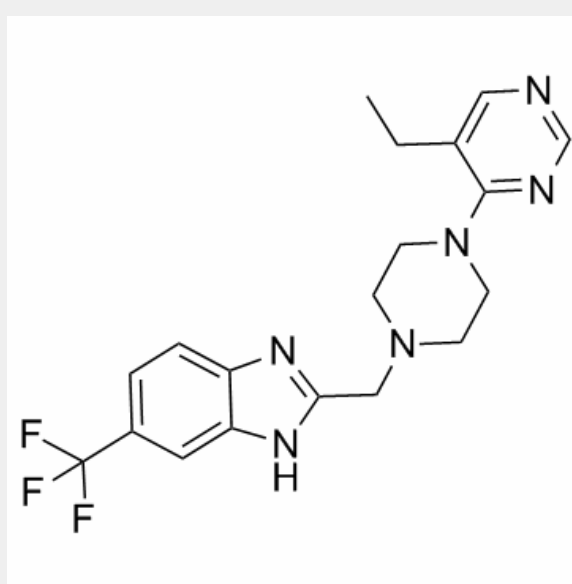
Product Description

PF-4708671 is a potent cell-permeable **S6K1** inhibitor with a K_i of 20 nM and IC_{50} of 160 nM.

In Vitro: PF-4708671 inhibits the activity of full-length S6K1 in vitro with a K_i of 20 nM, and S6K1 isolated from IGF1-stimulated

HEK293 cells with an IC_{50} of 0.16 μ M, and only inhibits very weakly the closely related S6K2 isoform (IC_{50} of 65 μ M). PF-4708671 inhibits RSK1 (IC_{50} of 4.7 μ M) and RSK2 (IC_{50} of 9.2 μ M) over 20-fold less potently than S6K1. PF4708671 inhibits MSK1 (IC_{50} of 0.95 μ M) 4-fold more weakly than S6K1^[1]. HCT116 cells are treated with (i) vehicle (DMSO), (ii) OSI-906 (5 μ M), (iii) PF-4708671 (10 μ M), and (iv) OSI-906 (5 μ M)+PF-4708671 (10 μ M) for various amounts of time. HCT116 cells treated with OSI-906 alone (closed square) or PF4708671 alone (open circle) slightly inhibit cell growth. In contrast, proliferation in HCT116 cells is significantly inhibited after a 2-day treatment with the combination of OSI-906 and PF-4708671 (closed circle). A similar result is also observed when SW480 cells are treated with the combination of OSI-906 and PF-4708671. Colony formation also significantly reduces in OSI-906+PF-4708671-treated cells comparing with vehicle, OSI-906 alone, or PF-4708671 alone treated HCT116 or SW480 cells^[2].

In Vivo: The tumor growth rate in mice treated with the combination of OSI-906+PF-4708671 is significantly slower than that of OSI-906 alone ($P=0.0189$) or PF4708671 alone ($P=0.0165$) treated mice. The average tumor volume in the OSI-906+PF-4708671-treated mice is approximately 50% of that in mice treated with OSI-906 ($P=0.0056$) or PF-4708671 alone ($P[2]$).



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!