

# 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

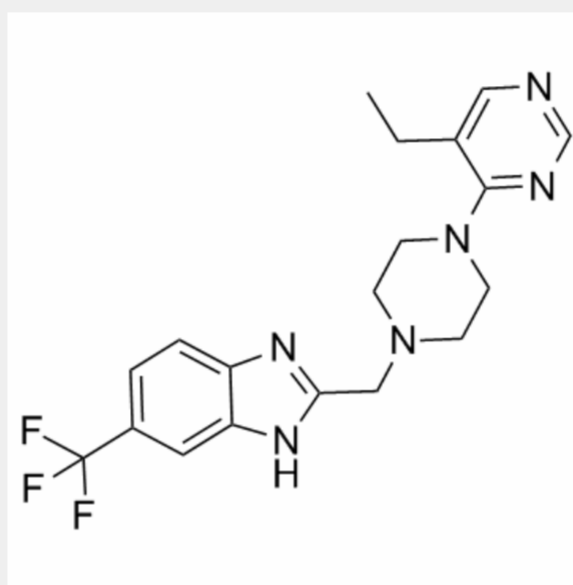
## Product Description

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  $\mu$ M, and only inhibits very weakly the closely related S6K2 isoform ( $IC_{50}$  of 65  $\mu$ M). PF-4708671 inhibits RSK1 ( $IC_{50}$  of 4.7  $\mu$ M) and RSK2 ( $IC_{50}$  of 9.2  $\mu$ M) over 20-fold less potently than S6K1. PF4708671 inhibits MSK1 ( $IC_{50}$  of 0.95  $\mu$ M) 4-fold more weakly than S6K1<sup>[1]</sup>. HCT116 cells are treated with (i) vehicle (DMSO), (ii) OSI-906 (5  $\mu$ M), (iii) PF-4708671 (10  $\mu$ M), and (iv) OSI-906 (5  $\mu$ M)+PF-4708671 (10  $\mu$ 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<sup>[2]</sup>.

**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!