Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

BF738735

Catalog No: tcsc0035356

Available Sizes

Size: 5mg

Size: 10mg

Size: 25mg

Specifications

CAS No:
1436383-95-7

Formula:
$C_{21}H_{19}FN_4O_3S$

Pathway:
PI3K/Akt/mTOR

Target:
PI4K

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
426.46

Product Description

BF738735 is a phosphatidylinositol 4-kinase III beta (**PI4KIIIβ**) inhibitor with an **IC_{50}** of 5.7 nM.

IC50 & Target: IC50: 5.7 nM (PI4KIIIβ), 1.7 μM (PI4KIIIα)[1]

In Vitro:

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BF738735 (Compound 1) strongly inhibits PI4KIIIβ activity in vitro, with an IC_{50} of 5.7 nM. BF738735 also impairs PI4KIIIα, but only at an ~300-fold-higher concentration (IC_{50} of 1.7 μM). In addition, the activity of BF738735 is analyzed on a set of 150 cellular kinases, including 13 lipid kinases at a concentration of 10 μM. For all kinases, the inhibition is less than 10%, indicating that BF738735 specifically inhibits PI4KIIIβ in vitro. BF738735 exhibits a broad spectrum of antiviral activity, as it inhibits all tested species of enteroviruses and rhinoviruses, with 50% effective concentrations ranging between 4 and 71 nM. BF738735 potently inhibits all viruses tested, with EC_{50}s ranging between 4 and 71 nM. The cytotoxicity of BF738735, determined in parallel with the EC_{50} and using the same culture conditions for 3 to 4 days, is low, with CC_{50} values ranging from 11 to 65 μM, resulting in high selectivity indices. Low concentrations of BF738735 reduce the amount of luciferase to GuaHCl-treated levels, suggesting that the BF738735 blocks viral RNA replication. The EC_{50} of BF738735 in this assay is 77 nM, which is comparable to the inhibition observed in the multicycle assay for coxsackievirus serotype B3 (CVB3)[1].

In Vivo: BF738735 is well tolerated by specimens with good plasma levels of the antiviral in circulation and a complete inhibition with 25 mg/kg and some inhibition with 5 mg/kg dose is observed[2].