

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

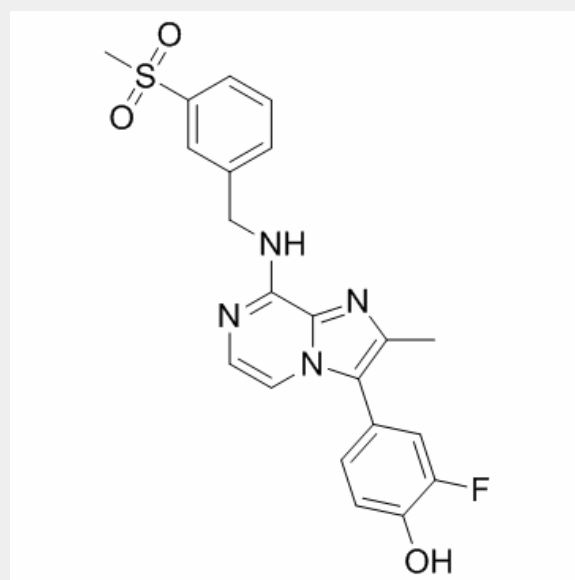
BF738735 is a phosphatidylinositol 4-kinase III beta (**PI4KIIIβ**) inhibitor with an **IC₅₀** of 5.7 nM.

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

In Vitro:

BF738735 (Compound 1) strongly inhibits PI4KIII β activity in vitro, with an IC₅₀ of 5.7 nM. BF738735 also impairs PI4KIII α , but only at an ~300-fold-higher concentration (IC₅₀ of 1.7 μ M). In addition, the activity of BF738735 is analyzed on a set of 150 cellular kinases, including 13 lipid kinases at a concentration of 10 μ M. For all kinases, the inhibition is less than 10%, indicating that BF738735 specifically inhibits PI4KIII β 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 EC₅₀s ranging between 4 and 71 nM. The cytotoxicity of BF738735, determined in parallel with the EC₅₀ and using the same culture conditions for 3 to 4 days, is low, with CC₅₀ values ranging from 11 to 65 μ M, 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 EC₅₀ 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].



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