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

AZD1080

Catalog No: tcsc1520

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
612487-72-6

Formula:
$C_{19}H_{18}N_4O_2$

Pathway:
Stem Cell/Wnt;PI3K/Akt/mTOR

Target:
GSK-3;GSK-3

Purity / Grade:
>98%

Solubility:
DMSO : 21.35 mg/mL (63.85 mM; Need ultrasonic and warming)

Observed Molecular Weight:
334.37

Product Description

AZD1080 is a potent and selective **GSK3** inhibitor. AZD1080 inhibits recombinant human **GSK3α** and **GSK3β** with **pK_i** (**IC_{50}**) of 8.2

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(6.9 nM) and 7.5 (31 nM), respectively.

IC50 & Target: IC50: 6.9 nM (GSK3α), 31 nM (GSK3β)[1]

pKi: 8.2 (GSK3α), 7.5 (GSK3β)[1]

In Vitro: AZD1080 shows selectivity against cdk2 (pK_i=5.9; 1150 nM; 37-fold), cdk5 (pK_i=6.4; 429 nM; 14-fold), cdk1 (pK_i=5.7; 1980 nM; 64-fold) and Erk2 (pK_i10 μM; >323-fold). AZD1080 (at 10 μM) is also evaluated for pan-kinase selectivity and showed good overall selectivity versus 23 kinases, as well as against 65 different receptors, enzymes and ion channels in MDS Pharma screen (50=324 nM) and the non-selective reference GSK3 inhibitor LiCl (IC_{50}=1.5 mM) indicating that AZD1080 is several orders of magnitude more potent than LiCl[1].

In Vivo: The pharmacokinetic analysis in blood after oral administration revealed that AZD1080 has a good oral bioavailability in rats (15-24%) with a half-life of 7.1 h, making AZD1080 attractive for further in vivo testing. The subchronic (3 days) oral treatment with AZD1080 at 4 or 15 μmol/kg significantly blocked the MK-801-induced memory deficit (AZD1080 vs. MK-801, p[1].