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

D4476

Catalog No: tcsc1080

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
301836-43-1

Formula:
$C_{23}H_{18}N_4O_3$

Pathway:
Autophagy;Stem Cell/Wnt;Cell Cycle/DNA Damage

Target:
Autophagy;Casein Kinase;Casein Kinase

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
Casein Kinase I Inhibitor

Observed Molecular Weight:
398.41

Product Description

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D4476 is a potent, selective and cell-permeable inhibitor of casein kinase 1(**CK1**) with an **IC_{50}** value of 0.3 μM *in vitro*.

IC50 & Target: IC50: 0.3 μM (CK1)[1]

In Vitro: D4476 is a potent and rather selective inhibitor of CK1 *in vitro* and in cells. In H4IIE hepatoma cells, D4476 specifically inhibits the phosphorylation of endogenous forkhead box transcription factor O1a (FOXO1a) on Ser322 and Ser325 within its MPD, without affecting the phosphorylation of other sites. CK1δ assayed at 0.1 mM ATP using a phosphorylated peptide TFRPRTSpSNASTIS corresponding to residues 312–325 of FOXO1a is inhibited with an IC_{50} value of 0.3 μM. The IC_{50} value for CK1δ decreases progressively as the concentration of ATP is lowered, indicating that D4476 is an ATP-competitive inhibitor of CK1. CK1[1].