

# 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:**

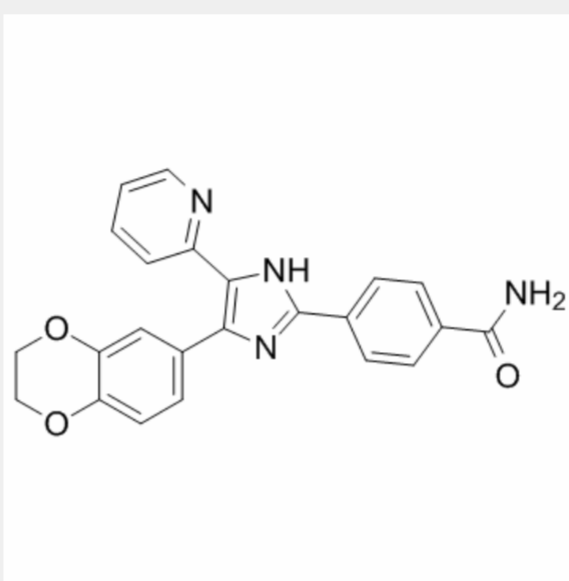
398.41

## Product Description

D4476 is a potent, selective and cell-permeable inhibitor of casein kinase 1(**CK1**) with an **IC<sub>50</sub>** value of 0.3  $\mu$ M *in vitro*.

IC50 & Target: IC50: 0.3  $\mu$ M (CK1)<sup>[1]</sup>

**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. CK1 $\delta$  assayed at 0.1 mM ATP using a phosphorylated peptide TFRPRTSpSNASTIS corresponding to residues 312–325 of FOXO1a is inhibited with an IC<sub>50</sub> value of 0.3  $\mu$ M. The IC<sub>50</sub> value for CK1 $\delta$  decreases progressively as the concentration of ATP is lowered, indicating that D4476 is an ATP-competitive inhibitor of CK1. CK1<sup>[1]</sup>.



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