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

HTH-01-015

Catalog No: tcsc3344

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1613724-42-7

Formula:
$C_{26}H_{28}N_8O$

Pathway:
Epigenetics;PI3K/Akt/mTOR

Target:
AMPK;AMPK

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
468.55

Product Description

HTH-01-015 is a selective **NUAK1** inhibitor (**IC_{50}** is 100 nM). HTH-01-015 inhibits NUAK1 with >100-fold higher potency than NUAK2

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(IC50 of >10 μM).

IC50 & Target: IC50: 100 nM (NUAK1)[1]

In Vitro: HTH-01-015 is a specific NUAK1 inhibitor. The related NUAK1 and NUAK2 are members of the AMPK (AMP-activated protein kinase) family of protein kinases that are activated by the LKB1 (liver kinase B1) tumor suppressor kinase. HTH-01-015 inhibits NUAK1 with an IC_{50} of 100 nM, but does not significantly inhibit NUAK2 (IC_{50} of >10 μM). In all cell lines tested, HTH-01-015 inhibits the phosphorylation of the only well-characterized substrate, MYPT1 (myosin phosphate-targeting subunit 1) that is phosphorylated by NUAK1 at Ser^{445}. In U2OS cells, HTH-01-015 suppresses proliferation and phosphorylation of MYPT1 to the same extent as shRNA-mediated NUAK1 knockdown. In mouse embryonic fibroblasts (MEFs), treatment with 10 μM HTH-01-015 suppresses proliferation and phosphorylation of MYPT1 to the same extent as NUAK1-knockout. To test whether NUAK1 inhibition impaired the ability of the invasive U2OS cells to enter a matrix, 3D Matrigel Transwell invasion assays demonstrate that 10 μM HTH-01-015 markedly inhibits the invasiveness of U2OS cells in this assay[1].