

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

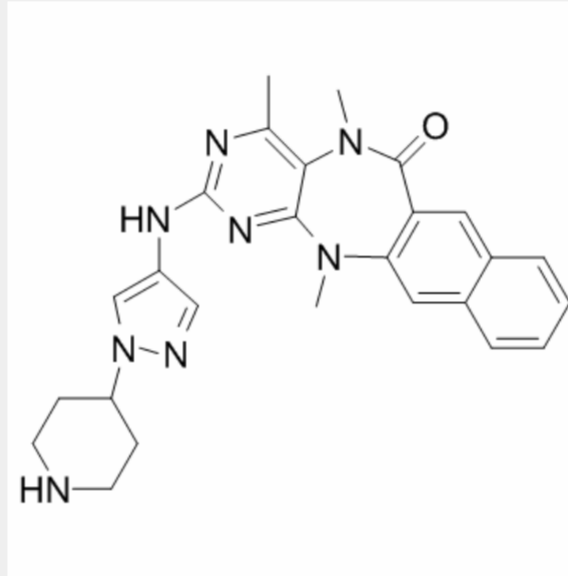
Product Description

HTH-01-015 is a selective **NUAK1** inhibitor (**IC₅₀** is 100 nM). HTH-01-015 inhibits NUAK1 with >100-fold higher potency than NUAK2

(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 IC₅₀ of 100 nM, but does not significantly inhibit NUAK2 (IC₅₀ 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 Ser⁴⁴⁵. 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].



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