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

Hesperadin

Catalog No: tcsc0213

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
422513-13-1

Formula:
$C_{29}H_{32}N_4O_3S$

Pathway:
Cell Cycle/DNA Damage;Epigenetics;Autophagy

Target:
Aurora Kinase;Aurora Kinase;Autophagy

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
516.65

Product Description

Hesperadin is an ATP-competitive inhibitor of **aurora B** kinase with an **IC_{50}** of 250 nM.

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IC50 & Target: IC50: 250 nM (Aurora B)[1]

In Vitro: Hesperadin also inhibits other kinases such as AMPK, Lck, MKK1, MAPKAP-K1, CHK1, and PHK at 1 μM drug concentration. Hesperadin causes polyploidy in HeLa cells. Hesperadin-treated HeLa cells show alignment and segregation defects, but sister chromatid separation is intact. Hesperadin causes defects in mitosis and cytokinesis. Hesperadin inhibits Aurora B. Immunofluorescence microscopy reveals that Hesperadin-treated cells in which chromosomes are stretched toward opposite poles, i.e., which have entered anaphase, fail to assemble a central spindle and to properly localize the human centralspindlin subunits CYK-4 and MKLP1[1]. Hesperadin inhibits multiple human clinical isolates of influenza A and B viruses with single to submicromolar efficacy, including oseltamivir-resistant strains. Mechanistic studies reveal that hesperadin inhibits the early stage of viral replication by delaying the nuclear entry of viral ribonucleoprotein complex, thereby inhibiting viral RNA transcription and translation as well as viral protein synthesis[2]. Hesperadin inhibits cell cell proliferation due to appearance of multiple mitotic defects caused by Aurora B activity reduction and elimination of checkpoint proteins--such as hBUBR1 and CENP-E--from kinetochores of mitotic chromosomes[3].