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

CVT-313

Catalog No: tcsc0881

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
199986-75-9

Formula:
$C_{20}H_{28}N_6O_3$

Pathway:
Cell Cycle/DNA Damage

Target:
CDK

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
Cdk2 Inhibitor III

Observed Molecular Weight:
400.47

Product Description

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CVT-313 is a potent, selective, reversible, and ATP-competitive inhibitor of **CDK2** with **IC_{50}** of 0.5 μM.

IC50 & Target: IC50: 0.5 μM (CDK2), 4.2 μM (CDK1), 215 μM (CDK4)[1]

In Vitro: CVT-313 has been shown to inhibit other kinases, but at much higher IC_{50} values, i.e., CDK1 (IC_{50}=4.2 μM), CDK4 D1 (IC_{50}=215 μM), and MAPK/PKA/PKC (IC_{50}>1.25 mM), compared to CDK2 (IC_{50}=0.5 μM). CVT-313 has been shown to have profound effects on cell proliferation at concentrations of 5-20 μM[1]. CVT-313 is a potent CDK2 inhibitor, which is identified from a purine analog library with an IC_{50} of 0.5 μM in vitro. Inhibition is competitive with respect to ATP (K_i=95 nM), and selective CVT-313 has no effect on other, nonrelated ATP-dependent serine/threonine kinases. When added to CDK1 or CDK4, a 8.5- and 430-fold higher concentration of CVT-313 is required for half-maximal inhibition of the enzyme activity. Using normal and tumor human/murine cell lines, the effects of CVT-313 on cell proliferation is measured. The IC_{50} for growth inhibition ranged from 1.25 to 20 μM[2].