

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:

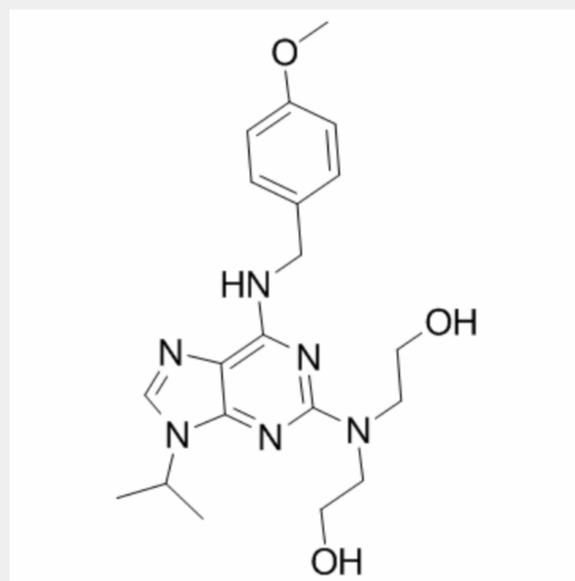
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Product Description

CVT-313 is a potent, selective, reversible, and ATP-competitive inhibitor of **CDK2** with **IC₅₀** of 0.5 μ M.

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

In Vitro: CVT-313 has been shown to inhibit other kinases, but at much higher IC₅₀ values, i.e., CDK1 (IC₅₀=4.2 μ M), CDK4 D1 (IC₅₀=215 μ M), and MAPK/PKA/PKC (IC₅₀>1.25 mM), compared to CDK2 (IC₅₀=0.5 μ M). CVT-313 has been shown to have profound effects on cell proliferation at concentrations of 5-20 μ M^[1]. CVT-313 is a potent CDK2 inhibitor, which is identified from a purine analog library with an IC₅₀ of 0.5 μ M 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 IC₅₀ for growth inhibition ranged from 1.25 to 20 μ M^[2].



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