

#9885
Store at -20°C

Roscovitine



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Background

Roscovitine is a cell permeable reversible selective inhibitor of cyclin-dependent kinases CDK1 (cdc2), CDK2 and CDK5 (1). A purine analog, this drug competes for the binding site of ATP in the catalytic cleft. Treatment of cultured cells with roscovitine can cause cell cycle arrest or apoptosis (1-4). The IC₅₀ for cdc2 activity is 0.65 μ M *in vitro* (1).

Molecular Formula

C₁₉H₂₈N₆O

Molecular Weight

354.45 g/mol

Purity

>99%

CAS

186692-46-6

Solubility

Soluble in DMSO and EtOH at 200mg/ml.

Storage

Store lyophilized or in solution at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use:

Roscovitine [(R) stereoisomer] is supplied as a 1 mg powder. Store at or below -20°C. Before use, dissolve powder in 143 μ l DMSO or MeOH to make a 20 mM stock solution. The suggested working concentration is 20 μ M in tissue culture medium. Treat cells for 4-24 hours. Store solution at -20°C.

Background References

1. Meijer, L. et al. (1997) *Eur J Biochem* 243, 527-36.
2. Whittaker, S.R. et al. (2007) *Cell Cycle* 6, 3114-31.
3. Dey, A. et al. (2008) *Cell Death Differ* 15, 263-73.
4. Wojciechowski, J. et al. (2003) *Int J Cancer* 106, 486-95.

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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