

#13101 Store at -20°C

NVP-BEZ235

5 mg

**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.**Background**

NVP-BEZ235 is a selective and potent dual inhibitor of PI3 kinase and mTOR Ser/Thr protein kinase. Research studies show that NVP-BEZ235 reversibly inhibits the catalytic activity of these kinases by competing with ATP at the ATP-binding site (1,2). Studies demonstrate that NVP-BEZ235 has anti-proliferative characteristics and induces cell cycle arrest during G₀/G₁ phase through inhibition of CDK4 and cyclin D3 (2,3).

Molecular FormulaC₃₀H₂₃N₅O**Molecular Weight**

469.54 g/mol

Purity

>99%

CAS

915019-65-7

Solubility

Soluble in anhydrous DMF at 10mg/ml and DMSO at 1.33mg/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:

NVP-BEZ235 is supplied as a lyophilized powder. For a 10 mM stock, reconstitute the 5 mg in 1.065 ml DMF and warm to 75°C for 5 minutes. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used at 5 nM-500 nM for 2-24 hr.

Background References

1. Serra, V. et al. (2008) *Cancer Res* 68, 8022-30.
2. Yang, S. et al. (2011) *PLoS One* 6, e26343.
3. Schult, C. et al. (2012) *Anticancer Res* 32, 463-74.

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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