

# PRODUCT INFORMATION

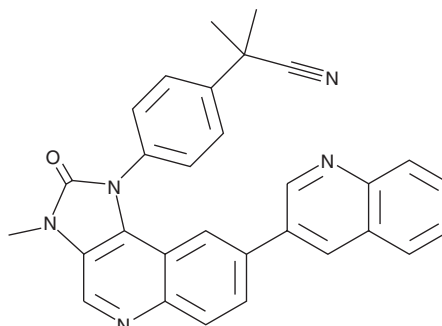


## NVP-BEZ235

Item No. 10565

**CAS Registry No.:** 915019-65-7  
**Formal Name:** 4-[2,3-dihydro-3-methyl-2-oxo-8-(3-quinolinyl)-1H-imidazo[4,5-c]quinolin-1-yl]- $\alpha,\alpha$ -dimethylbenzeneacetonitrile

**Synonym:** Dactolisib  
**MF:** C<sub>30</sub>H<sub>23</sub>N<sub>5</sub>O  
**FW:** 469.5  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 266, 320 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

NVP-BEZ235 is supplied as a crystalline solid. A stock solution may be made by dissolving the NVP-BEZ235 in the solvent of choice, which should be purged with an inert gas. NVP-BEZ235 is soluble in the organic solvent chloroform at a concentration of approximately 1 mg/ml.

### Description

NVP-BEZ235 is a dual inhibitor of class I PI3Ks (IC<sub>50</sub>s = 4, 75, 7, and 5 nM, for p110 $\alpha$ , - $\beta$ , - $\delta$ , and - $\gamma$ , respectively) and mTOR (IC<sub>50</sub> = 20 nM).<sup>1</sup> It is selective for these enzymes over a panel of kinases (IC<sub>50</sub>s = >10  $\mu$ M for all). NVP-BEZ235 (0.1 or 1  $\mu$ M) inhibits proliferation of, and induces apoptosis in, MCF-7, MDA-MB-468, SK-BR-3, and MDA-MB-361 breast cancer cells.<sup>2</sup> It reduces tumor growth in a U87MG mouse xenograft model when administered at a doses of 25, 35, or 45 mg/kg.<sup>1</sup>

### References

1. Maira, S.M., Stauffer, F., Brueggen, J., *et al.* Identification and characterization of NVP-BEZ235, a new orally available dual phosphatidylinositol 3-kinase/mammalian target of rapamycin inhibitor with potent in vivo antitumor activity. *Mol. Cancer Ther.* **7**(7), 1851-1863 (2008).
2. Serra, V., Markman, B., Scaltriti, M., *et al.* NVP-BEZ235, a dual PI3K/mTOR inhibitor, prevents PI3K signaling and inhibits the growth of cancer cells with activating PI3K mutations. *Cancer Res.* **68**(19), 8022-8030 (2008).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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