

NVP-BAG956

## Chemical Properties

CAS No.:	853910-02-8
Formula:	C <sub>28</sub> H <sub>21</sub> N <sub>5</sub>
Molecular Weight:	427.5
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

## Biological Description

Description	NVP-BAG956 is an ATP-competitive PI3K inhibitor (IC <sub>50</sub> s: 34/56/112/444 nM for PI3K $\delta$ /PI3K $\alpha$ /PI3K $\gamma$ /PI3K $\beta$ ).
In vitro	NVP-BAG956 also inhibits PDK1 (IC <sub>50</sub> : 240 nM) and VEGFR1 (IC <sub>50</sub> : 2.56 $\mu$ M). NVP-BAG956 blocks phosphorylation of PKB/Akt in A2058 cells (IC <sub>50</sub> : 67 nM). Inhibition of PKB/Akt phosphorylation correlated with loss of A2058 cell proliferation for NVP-BAG956 (IC <sub>50</sub> : 290 nM). In the presence of NVP-BAG956, A2058 cells are only able to exit G <sub>2</sub> -M and then remain in G <sub>1</sub> . The p27Kip1 expression is clearly induced by NVP-BAG956 in A2058 cells but not in C32 cells.
Cell Research	One day after plating ( $7 \times 10^3$ cells/cm <sup>2</sup> ), melanoma cells (A2058, B16F1, B16F10, C32, HBL, Malme, Malme3M, NA8, SKMel2, SKMel23, A375, Hs294T, WM35, and 1205lu cells) are exposed to LY294002 (25 $\mu$ M), Wortmannin (500 nM), NVP-BAG956 (1 $\mu$ M), NVP-BBD130 (1 $\mu$ M), NVP-BEZ235 (1 $\mu$ M), and ZSTK474 (1 $\mu$ M), and Rapamycin (100 nM). Compound concentrations are set 2 log units above the IC <sub>50</sub> in vitro to ensure full PI3K inhibition, except for the $\mu$ M inhibitor LY294002. Cells are trypsinized and counted, and the volume is quantified using a Casy Counter and Analyser. To determine the nuclear volume, cells are resuspended in CASYton containing 0.5% Triton X-100, followed by repetitive pipetting (8 $\times$ ), before volume measurements.
Animal Research	

## Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.339 mL	11.696 mL	23.392 mL
5 mM	0.468 mL	2.339 mL	4.678 mL
10 mM	0.234 mL	1.17 mL	2.339 mL
50 mM	0.047 mL	0.234 mL	0.468 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Marone R, et al. Targeting melanoma with dual phosphoinositide 3-kinase/mammalian target of rapamycin inhibitors. Mol Cancer Res. 2009 Apr;7(4):601-13.

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