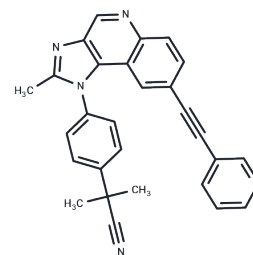


## NVP-BAG956

## Chemical Properties

CAS No. :	853910-02-8
Formula:	C <sub>28</sub> H <sub>21</sub> N <sub>5</sub>
Molecular Weight:	427.5
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	NVP-BAG956 (BAG956) is a potent PI3K/PDK inhibitor that inhibits PI3K $\delta$ , PI3K $\alpha$ , PI3K $\gamma$ , and PI3K $\beta$ , shows strong cytotoxicity against T-ALL cell lines, and can be used to study melanoma.
Targets(IC50)	PI3K
In vitro	NVP-BAG956 inhibited PDK1 (IC <sub>50</sub> : 240 nM) and VEGFR1 (IC <sub>50</sub> : 2.56 $\mu$ M). It also blocked the phosphorylation of PKB/Akt in A2058 cells with an IC <sub>50</sub> of 67 nM. The inhibition of PKB/Akt phosphorylation was closely correlated with the reduction of A2058 cell proliferation, with an IC <sub>50</sub> of 290 nM for NVP-BAG956. In the presence of NVP-BAG956, the A2058 cells were only able to exit from the G2-M phase, and thereafter stayed in the G1 phase. In addition, NVP-BAG956 significantly induced the expression of p27Kip1 in A2058 cells, but not in C32 cells. [1]
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-BE2235 (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.

## Solubility Information

Solubility	DMSO: 40 mg/mL (93.57 mM), Sonication is recommended. ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.68 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.3392 mL	11.6959 mL	23.3918 mL
5 mM	0.4678 mL	2.3392 mL	4.6784 mL
10 mM	0.2339 mL	1.1696 mL	2.3392 mL
50 mM	0.0468 mL	0.2339 mL	0.4678 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

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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