

## Nivolumab

## Chemical Properties

CAS No. : 946414-94-4

Formula:

Molecular Weight: 143.62 kDa

Storage: Store at low temperature  
-20°C for 1 year

Actual storage temperature shall be subject to the COA.

## Nivolumab

## Biological Description

Description	Nivolumab is a monoclonal antibody and is a humanized PD-1 antibody. Nivolumab has anti-tumor activity and is used in the treatment of melanoma, non-small cell lung cancer, renal cell carcinoma, etc.
Targets(IC50)	PD-1/PD-L1
In vitro	<p><b>METHODS:</b> CD4+ T cells were co-cultured with DC cells for 6 days, treated with Nivolumab (0-1000 nmol/L), and the supernatant was collected on day 5 to measure IFN<math>\gamma</math> production by ELISA.</p> <p><b>RESULTS:</b> In allogeneic MLR, blockade of PD-1 with Nivolumab systematically resulted in titratable enhancement of IFN<math>\gamma</math> release. [1]</p> <p><b>METHODS:</b> Human colon cancer cells HT29, HCT116 and LoVo were treated with Nivolumab (1 <math>\mu</math>M) and different chemotherapeutic regimens for 72 h. Cell viability was measured by SRB assay.</p> <p><b>RESULTS:</b> Nivolumab decreased the efficacy of chemotherapy and increased the IC50 of 5-FU (3.1-fold, 2.2-fold, and 1.9-fold), OXA (2.8-fold, 4.8-fold, and 15.8-fold), and IRI (2.2-fold, 1.7-fold, and 2.9-fold) in HT29, HCT116, and LoVo, respectively. Nivolumab increased the IC50 for CDDP, DOXO, and TAX.[2]</p>
In vivo	<p><b>METHODS:</b> To assay antitumor activity in vivo, Nivolumab (200 <math>\mu</math>g) was injected intraperitoneally into huNOG or huNOG Fc<math>\gamma</math>R-/- mice harboring HSC4, RKO, HCC827, or NCI-H1975 tumors once a week for four weeks.</p> <p><b>RESULTS:</b> In huNOG mice, Nivolumab did not inhibit any xenogeneic human tumors, whereas the growth of HSC4, HCC827, and NCI-H1975 (but not RKO) tumors in huNOG Fc<math>\gamma</math>R-/- mice was strongly inhibited or even rejected after Nivolumab treatment. In some experiments, tumor growth was enhanced in Nivolumab-treated huNOG mice, such as HCC827.[3]</p>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	0.007 mL	0.0348 mL	0.0696 mL
5 mM	0.0014 mL	0.007 mL	0.0139 mL
10 mM	0.0007 mL	0.0035 mL	0.007 mL
50 mM	0.0001 mL	0.0007 mL	0.0014 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.

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