

## Nivolumab

Cat. No.:	HY-P9903
CAS No.:	946414-94-4
Molecular Weight:	143599.09
Target:	PD-1/PD-L1
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	Nivolumab is a programmed death receptor-1 (PD-1) blocking antibody to treat advanced (metastatic) non-small cell lung cancer.
<b>In Vitro</b>	Nivolumab binds to CHO cells expressing PD-1 with an EC <sub>50</sub> of 1.66 nM, but does not bind to the parental CHO cell line. Nivolumab binds to PD-1 on activated T cells with an EC <sub>50</sub> of 0.64 nM. Nivolumab also inhibits the interaction between PD-1 and its ligands, PD-L1 and PD-L2, with IC <sub>50</sub> values of 2.52 and 2.59 nM, respectively. Nivolumab (1.5 ng/mL) can enhance T-cell reactivity in the presence of a T-cell receptor stimulus <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Nivolumab (10 and 50 mg/kg, i.v.) is well tolerated in cynomolgus monkeys. Serum chemistry changes are limited to a reversible 28% decrease in T3 at week 13 in females treated with 50 mg/kg. T4 and TSH levels are unchanged. In males treated with 50 mg/kg, there are no changes in T3, T4, or TSH levels. Nivolumab exposure increases in an approximately dose-proportional manner between 10 and 50 mg/kg, with no substantial sex differences noted <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Cell Mol Gastroenterol Hepatol. 2021 Mar 2;S2352-345X(21)00043-6.
- Am J Cancer Res. 2020 Sep 1;10(9):2800-2812.
- Patent. US20200253884A1.
- Patent. US20200261591A1

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### REFERENCES

[1]. Wang C, et al. In vitro characterization of the anti-PD-1 antibody nivolumab, BMS-936558, and in vivo toxicology in non-human primates. Cancer Immunol Res. 2014 Sep;2(9):846-56.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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