

Nivolumab (anti-PD-1)

Cat. No.:	HY-P9903A
CAS No.:	946414-94-4
Target:	PD-1/PD-L1
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	Nivolumab (anti-PD-1) is a programmed death receptor-1 (PD-1) blocking human IgG4 antibody to treat advanced (metastatic) non-small cell lung cancer ^[1] .
In Vitro	Nivolumab (anti-PD-1) binds to CHO cells expressing PD-1 with an EC ₅₀ of 1.66 nM, but does not bind to the parental CHO cell line. Nivolumab (anti-PD-1) binds to PD-1 on activated T cells with an EC ₅₀ of 0.64 nM. Nivolumab (anti-PD-1) also inhibits the interaction between PD-1 and its ligands, PD-L1 and PD-L2, with IC ₅₀ values of 2.52 and 2.59 nM, respectively. Nivolumab (anti-PD-1) (1.5 ng/mL) can enhance T-cell reactivity in the presence of a T-cell receptor stimulus ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Nivolumab (anti-PD-1) (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 (anti-PD-1) exposure increases in an approximately dose-proportional manner between 10 and 50 mg/kg, with no substantial sex differences noted ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biosens Bioelectron. 1 July 2022, 114166.
- Mol Ther. 2021 Sep 18;S1525-0016(21)00468-8.
- 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.

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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

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

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