

## 12-8040: Anti-Human CD279 (PD-1) (Nivolumab) - PE

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| <b>Clonality :</b>             | Monoclonal                                   |
| <b>Clone Name :</b>            | 5C4.B8                                       |
| <b>Application :</b>           | Functional Assay                             |
| <b>Alternative Name :</b>      | PD1; PD-1; CD279; SLEB2; hPD-1; hPD-I; hSLE1 |
| <b>Isotype :</b>               | Human IgG1k                                  |
| <b>Immunogen Information :</b> | Human PD-1                                   |

### Description

Expression Host : HEK-293

This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Nivolumab. Clone 5C4.B8 binds to the extracellular portion of Human/Cynomolgus PD-1 and does not bind to other IgG superfamily proteins. This product is for research use only.

Programmed cell death protein 1 (PD-1) is a protein on the surface of cells that plays a role in the maintenance of self-tolerance. PD-1 promotes self-tolerance via the down-regulation of the immune system which results in the suppression of T cell inflammatory activity. PD-L1 and PD-L2 are the two ligands known to bind PD-1. PD-L1 has increased expression in several cancers.<sup>1</sup> PD-L2 has a more limited expression and is primarily expressed by dendritic cells and only some tumor lines. Inhibition of the interaction of PD-1 with its ligands can function as an immune checkpoint blockade through the improvement of In vitro T-cell responses and via the mediation of anti-tumor activity.<sup>2</sup> Nivolumab disrupts the negative signal that is responsible for T-cell activation and proliferation by binding to PD-1 on activated immune cells to selectively block the interaction of the PD-1 receptor with its ligands.<sup>3</sup> Emerging research suggests that combined blockade of PD-1 and CTLA-4, with nivolumab and ipilimumab respectively, could produce greater antitumor activity than blockade of either pathway alone.<sup>4</sup> This cost-effective, research-grade Anti-Human CD279 (PD-1) (Nivolumab) utilizes the same variable regions from the therapeutic antibody Nivolumab making it ideal for research projects.

### Product Info

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|----------------------------|--|
| <b>Amount :</b>            | 50 µg<br>Concentration : 0.2 mg/ml   |
| <b>Content :</b>           | This R-phycoerythrin (R-PE) conjugate is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative. |
| <b>Storage condition :</b> | This R-phycoerythrin (R-PE) conjugate is stable when stored at 2-8°C. Do not freeze.   |

### Application Note

The suggested concentration for Nivolumab biosimilar antibody for staining cells in flow cytometry is  $\leq 1.0$  µg per  $10^6$  cells in a volume of 100 µl. Titration of the reagent is recommended for optimal performance for each application.