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

Clonality: Monoclonal Clone Name: 5C4.B8

**Application:** Functional Assay

Alternative Name: PD1; PD-1; CD279; SLEB2; hPD-1; hPD-1; hSLE1

**Isotype:** Human IgG1k **Immunogen Information:** 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.1 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.2 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.3 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.4 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**

Amount:  $50 \mu g$ 

Concentration: 0.2 mg/ml

Content: 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.

**Storage condition:** 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  $\leq 1.0 \mu g$  per 106 cells in a volume of 100  $\mu$ l. Titration of the reagent is recommended for optimal performance for each application.