 PD-1 Fc Chimera, Human

**Cat. No.:** Z03370-50

**Size:** 50 µg

**Synonyms:** PD-1; CD279; PDCD1

**Description:**

Programmed cell death protein 1, also known as PD-1 and CD279 (cluster of differentiation 279) or PDCD1, is a protein that in humans is encoded by the PDCD1 gene. PD-1 is a cell surface receptor that belongs to the immunoglobulin superfamily and is expressed on T cells and pro-B cells. PD-1 binds two ligands, PD-L1 and PD-L2. PD-1 and its ligands play an important role in down regulating the immune system by preventing the activation of T-cells, which in turn reduces autoimmunity and promotes self-tolerance. The inhibitory effect of PD-1 is accomplished through a dual mechanism of promoting apoptosis (programmed cell death) in antigen specific T-cells in lymph nodes while simultaneously reducing apoptosis in regulatory T cells (suppressor T cells).

Recombinant Human PD-1 produced in CHO cells with C-terminal Fc tag, is a polypeptide chain containing 376 amino acids. A fully biologically active molecule, rhPD-1 has a molecular mass of 60-65 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Amino Acid Sequence:**

LDSPDRPWN PTFSPALLVV TEGDNATFTC SFSNTSESFW
LNWYRMSPSN QTDLKXAFPE DRSPQGQDCR
FRVTQLPGR DFHMSVVRAR RNDSTGYLCG AISLAPKAQI
KESLRAELVR TERRAEVPTA HPSPSRPAG QFQ

**Source:** CHO

**Biological Activity:** Measured by its binding ability in a functional ELISA. Immobilized rh PD-L1/B7-H1 Fc Chimera at 1 µg/ml (100 µl/well) can bind biotinylated rhPD-1 Fc Chimera with a linear range of 0.1-1 µg/ml when detected by HRP*-Labeled Streptavidin.

**Molecular Weight:** 60-65kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized from a 0.2 µm filtered solution in PBS.

**Reconstitution:** Reconstituted in ddH2O or PBS at 100 µg/ml.

**Purity:** >98% as analyzed by reducing SDS-PAGE.

**Endotoxin Level:** <0.2 EU/µg, determined by LAL method.

**Storage:** Lyophilized recombinant Human PD-1 remains stable up to 6 months at -80°C from date of receipt. Upon reconstitution, Human PD-1 should be stable up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

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