

Recombinant Human PD1 / Fc Chimera

Catalog Number: 10377-H03H

General Information

Gene Name Synonym:

PDCD1, PD1, CD279, SLEB2, hPD-1, hPD-I

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1- Gln 167) of human PD1 (NP_005009.2) was fused with the C-terminal polyhistidine-tagged Fc region of human IgG₁ at the C-terminus

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Bio-activity:

Measured by its binding ability in a functional ELISA
Immobilized recombinant human PD-L2 at 1ug/ml (100ul/well) can bind human PD1 / Fc chimera with a linear range of 7.8 - 1000 ng/ml

Endotoxin:

< 1.0 EU per µg protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Leu25

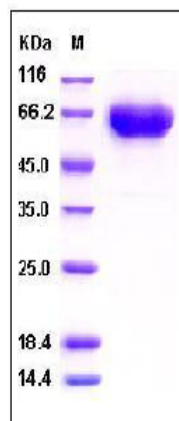
Molecular Mass:

The recombinant human PD1/Fc is a disulfide-linked homodimeric protein. The reduced monomer consists of 390 amino acids and has a calculated molecular mass of 44 KDa. As a result of glycosylation, rhPD1/Fc monomer migrates as an approximately 60-65 KDa protein in SDS-PAGE under reducing conditions

Formulation:

Supplied as a 0.2µm filtered solution of PBS , pH 7.4

SDS-PAGE:



Usage Guide

Storage:

Store it under sterile conditions at -70°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.
Avoid repeated freeze-thaw cycles.

Reconstitution:

Follow the instructions on the vial.
Centrifuge the vial at 4°C before opening to recover the entire contents.

Protein Description

Programmed Cell Death 1 is a type I transmembrane immunoreceptor and belongs to the CD28 immunoglobulin superfamily that mediates immune responses. PD1 is expressed on activated T-cells, B cells, myeloid cells and a subset of thymocytes. PD1 inhibits the T-cell proliferation and production of related cytokines including IL-1, IL-4, IL-10 and IFN-γ by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediated signal by dephosphorylating key signal transducer. PD1 has been suggested to be involved in lymphocyte clonal selection and peripheral tolerance, and thus contributes to the prevention of autoimmune diseases. Furthermore, PD1 is shown to be a regulator of virus-specific CD8+ T cell survival in HIV infection.

References

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2. Parry, R.V. et al., 2005, Mol.Cell.Biol. 25: 9543-9553.
3. Okazaki, T. et al., 2001, Proc.Natl.Acad.Sci. 98: 13866-13871.
4. Latchman, Y. et al., 2001, Nature. Immun. 2: 261-268.
5. Petrovas, C. et al., 2006, J.Exp.Med. 203: 2281-2292.