

Recombinant Mouse Pdcd1, Fc tagged, Biotinylated

Cat. No. Pdcd1-205M Lot. No. (See product label)

SPECIFICATION

Product Overview Biotinylated Mouse PD1 /PDCD1 Protein,C-Fc Tag (Biotinylated Mouse PDCD1 /PD1 Fc Chimera) Ser 21 - Gln 167 (Accession # NP_032824) was produced in human 293 cells (HEK293).

Species Mouse

Source HEK293

ProteinLength 21-167 a.a.

Description

Programmed cell death protein 1 (PD-1) is also known as CD279 and PDCD1, is a type I membrane protein and is a member of the extended CD28/CTLA-4 family of T cell regulators. PDCD1 is expressed on the surface of activated T cells, B cells, macrophages, myeloid cells and a subset of thymocytes. PD-1 has two ligands, PD-L1 and PD-L2, which are members of the B7 family. PD-L1 is expressed on almost all murine tumor cell lines, including PA1 myeloma, P815 mastocytoma, and B16 melanoma upon treatment with IFN- γ . PD-L2 expression is more restricted and is expressed mainly by DCs and a few tumor lines. 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. In vitro, treatment of anti-CD3 stimulated T cells with PD-L1-Ig results in reduced T cell proliferation and IFN- γ secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer.

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Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Molecular Mass	Biotinylated Mouse PDCD1 /PD1 Fc Chimera is fused with a human IgG1 Fc tag at the C-terminus, and has a calculated MW of 43.2 kDa. The predicted N-terminus is Ser 21. DTT-reduced Protein migrates as 60-66 kDa in SDS-PAGE due to glycosylation.
Endotoxin	Less than 1.0 EU per µg of the Biotinylated Mouse PDCD1 /PD1 Fc Chimera by the LAL method.
Purity	>92% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC); After reconstitution under sterile conditions for 3 months (-70oC).
Reconstitution	See Certificate of Analysis for reconstitution instructions and specific concentrations.
Conjugation	Biotin
GENE INFORMATION	
Gene Name	Pdc1 programmed cell death 1 [Mus musculus]
Official Symbol	Pdcd1
Synonyms	PDCD1; programmed cell death 1; programmed cell death protein 1; mPD-1; protein PD-1; PD-1; Pdc1; Ly101;
Gene ID	18566

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mRNA Refseq	NM_008798
Protein Refseq	NP_032824
Pathway	Adaptive Immune System, organism-specific biosystem; Cell adhesion molecules (CAMs), organism-specific biosystem; Cell adhesion molecules (CAMs), conserved biosystem; Costimulation by the CD28 family, organism-specific biosystem; Immune System, organism-specific biosystem; PD-1 signaling, organism-specific biosystem; T cell receptor signaling pathway, organism-specific biosystem;
Function	protein binding;

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