### General Information

**Immunogen:** Recombinant Human PD1 / PDCD1 / CD279 protein (Catalog#10377-H08H)

**Clone ID:** mhT28

**Ig Type:** mouse (variable region) / human (kappa / IgG1 constant) chimeric antibody

**Applications:** Neutralization

**Specificity:** Human PD1 / PDCD1 / CD279

**Formulation:** 0.2 μm filtered solution in PBS

**Storage:** < -20°C

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### Preparation

It is a chimeric monoclonal antibody combining the constant domains of the human IgG1 molecule with mouse variable regions. The variable region was obtained from a mouse immunized with purified, recombinant Human PD1 / PDCD1 / CD279. The antibody was produced using recombinant antibody technology.

### Applications

**Block** - In a functional ELISA which immobilized recombinant Human PD-L1 (Catalog#10084-H02H) at 10 μg/mL (100 μL/well) in the plate, the Mouse and Human Chimeric anti-Human PD1 Monoclonal Antibody (Catalog#10377-mhT28) can block the binding of 0.2 μg/mL of recombinant Human PD1/Fc Chimera (Catalog#10377-H03H) to human PD-L1, the EC50 is 0.23 μg/mL.

**Specificity**

Human PD1 / PDCD1 / CD279

No cross-reactivity with mouse PD1 (Catalog#50124-M08H) Protein in ELISA assay

### Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **Preservative-Free.**

Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

### Background

Programmed cell death 1, also known as PDCD1, is a type I transmembrane glycoprotein, and is an immunoreceptor belonging to the CD28/CTLA-4 family negatively regulates antigen receptor signaling by recruiting protein tyrosine phosphatase, SHP-2 upon interacting with either of two ligands, PD-L1 or PD-L2. 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-mediating 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. As a cell surface molecule, PDCD1 regulates the adaptive immune response. Engagement of PD1 by its ligands PD1-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation, cytokine production, and cytolytic function.

### Reference


