

1P-176-T100

## Monoclonal Antibody to CD279 / PD-1 Phycoerythrin (PE) conjugated (100 tests)

Clone: EH12.2H7
Isotype: Mouse IqG1

Specificity: The mouse monoclonal antibody EH12.2H7 recognizes CD279 / PD-1

(programmed cell death 1), a 55 kDa type I transmembrane protein expressed above all during T cell development, on activated T cells, activated B cells, and

activated monocytes.

Regulatory Status: RUO

**Species Reactivity:** Human, Non-Human Primates

Preparation: The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum

conditions. The conjugate is purified by size-exclusion chromatography and

adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using

10 μl reagent / 100 μl of whole blood or 10<sup>6</sup> cells in a suspension.

The content of a vial (1 ml) is sufficient for 100 tests.

Expiration: See vial label

Lot Number: See vial label

Background: CD279 / PD-1 (programmed cell death 1), a transmembrane protein of

CD28/CTLA-4 family. It is expressed inducibly mainly on activated T, B, and myeloid cells and plays a role in maintaining peripheral self-tolerance. Binding to its receptors CD273 and CD274 is associated with inhibition of T cell proliferation and induction of their anergy. It is also expressed during thymic development. Some variants of CD279 are associated with susceptibility to systemic lupus

erythematosus, type 1 diabetes, and rheumatoid arthritis.



## PRODUCT DATA SHEET

## References:

\*Zhou J, Cheung AK, Liu H, Tan Z, Tang X, Kang Y, Du Y, Wang H, Liu L, Chen Z: Potentiating functional antigen-specific CD8⁺ T cell immunity by a novel PD1 isoform-based fusion DNA vaccine. Mol Ther. 2013 Jul;21(7):1445-55.

\*Xu Y, Weatherall C, Bailey M, Alcantara S, De Rose R, Estaquier J, Wilson K, Suzuki K, Corbeil J, Cooper DA, Kent SJ, Kelleher AD, Zaunders J: Simian immunodeficiency virus infects follicular helper CD4 T cells in lymphoid tissues during pathogenic infection of pigtail macaques. J Virol. 2013 Apr;87(7):3760-73.

\*Bedoret D, Singh AK, Shaw V, Hoyte EG, Hamilton R, DeKruyff RH, Schneider LC, Nadeau KC, Umetsu DT: Changes in antigen-specific T-cell number and function during oral desensitization in cow's milk allergy enabled with omalizumab. Mucosal Immunol. 2012 May;5(3):267-76.

\*Gros A, Robbins PF, Yao X, Li YF, Turcotte S, Tran E, Wunderlich JR, Mixon A, Farid S, Dudley ME, Hanada K, Almeida JR, Darko S, Douek DC, Yang JC, Rosenberg SA: PD-1 identifies the patient-specific CD8⁺ tumor-reactive repertoire infiltrating human tumors. J Clin Invest. 2014 May;124(5):2246-59.

\*Haile ST, Dalal SP, Clements V, Tamada K, Ostrand-Rosenberg S: Soluble CD80 restores T cell activation and overcomes tumor cell programmed death ligand 1-mediated immune suppression. J Immunol. 2013 Sep 1;191(5):2829-36.

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