

## Anti-Human CD279 (PD-1) FITC

Catalogue Number : 31811-50

RUO: For Research Use Only. Not for use in diagnostic procedures.

### Product Information

**Clone:** MIH4

**Format/Conjugate:** FITC

**Concentration:** 5  $\mu$ L (2.0  $\mu$ g)/test

**Reactivity:** Human

**Laser:** Blue (488nm)

**Peak Emission:** 520nm

**Peak Excitation:** 494nm

**Filter:** 530/30

**Brightness (1=dim,5=brightest):** 3

**Isotype:** Mouse IgG1, kappa

**Formulation:** Phosphate-buffered aqueous solution,  $\leq$ 0.09% Sodium azide, may contain carrier protein/stabilizer, pH7.2.

**Storage:** Product should be kept at 2-8°C and protected from prolonged exposure to light.

**Applications:** FC

### Description

The MIH4 monoclonal antibody specifically reacts with human Programmed death-1 (PD-1 or CD279), a 50-55 kDa glycoprotein. It is expressed on mainly on activated B, T, and myeloid cells. Within the cytoplasmic region, PD-1 contains an Immunoreceptor tyrosine-based inhibitory motif (ITIM) and seems to regulate peripheral tolerance. The lack or mutation of CD279 is linked to autoimmune disorders.

### Preparation & Storage

The product should be stored undiluted at 4°C and should be protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified utilizing affinity chromatography and unreacted dye was removed from the product.

### Application Notes

The antibody has been analyzed for quality through the flow cytometric analysis of the relevant cell type. The antibody can be used at less than or equal to 5  $\mu$ L per test. A test is the amount of antibody required to stain a cell sample in the final volume of 100  $\mu$ L.

### References

1. Zhang, J. Y., Zhang, Z., Wang, X., Fu, J. L., Yao, J., Jiao, Y., ... Wang, F. S. (2007). PD-1 up-regulation is correlated with HIV-specific memory CD8+ T-cell exhaustion in typical progressors but not in long-term nonprogressors.; *Blood*, 109(11), 4671-4678.
2. Bennett, F., Luxenberg, D., Ling, V., Wang, I. M., Marquette, K., Lowe, D., ... Carreno, B. M. (2003). Program death-1 engagement upon TCR activation has distinct effects on costimulation and cytokine-driven proliferation: attenuation of ICOS, IL-4, and IL-21, but not CD28, IL-7, and IL-15 responses.; *The Journal of Immunology*, 170(2), 711-718.
3. Thompson, R. H., Dong, H., Lohse, C. M., Leibovich, B. C., Blute, M. L., Cheville, J. C., Kwon, E. D. (2007). PD-1 is expressed by tumor-infiltrating immune cells and is associated with poor outcome for patients with renal cell carcinoma.; *Clinical Cancer Research*, 13(6), 1757-1761.