

## Human CD279(PD-1)-muIg/Biotin Fusion Protein\*

**CATALOG#: 549-030**

**QUANTITY: 25 µg**

**CONCENTRATION: 0.5 mg/ml**

**Molecular Structure:** A soluble fusion protein consisting of the extracellular (139aa) domain of human CD279(PD-1) and murine IgG2a Fc +hinge. In SDS-PAGE, this protein runs at 52 kd under native, and 27 kd under reducing conditions.

**Data suggest that the murine Ig Fc portion of this construct may be missing.**

**Transfectant Cell Line:** CHO

**INFORMATION** Human CD279 (PD-1, Programmed death 1) is a 55 kd Ig superfamily member with similarity to CD28 and CD152(CTLA-4). It is expressed on activated T and B and myeloid cells, and engagement by its ligands PD-L1 (CD274, B7-H1) or PD-L2 (B7-DC) can inhibit proliferation and cytokine expression. In mice blockade of PD-1 ligand interaction has been used to augment T cell anti cancer responses (1,2,3).

Recombinant CD279-muIg binds to recombinant CD274 and CD273 in EIA and cell surface CD273 on moDC in FACS. It is recognized by anti-CD279 mAb (cat #279-030; clone ANC4H6) in EIA.

**References:** . 1) MA Curran, Allison JP, et al. (2010) *PNAS* **107**(9): 4275-80. 2) Mangsbo SM, TH Totterman, et al. (2010) *J Immunotherapy* **33**(3):225. 3) Hirano F, L Chen, et al. (2005) *Canc Res* **65**: 1089.

**STORAGE CONDITIONS:** Store at 2 - 5°C. Freeze/Thawing is not recommended.

**PRODUCT STABILITY:** Product should retain activity for at least 6 months after shipping date when stored as recommended. Ship Date: \_\_\_\_\_

**BUFFER:** 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN<sub>3</sub> (as a preservative).

**PRODUCTION:** CD279-muIg was purified from (low FBS containing) tissue culture supernatant of CHO transfectants using Protein A and size exclusion chromatography. Purified protein was reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate by desalting column.

**PERFORMANCE:** Five x 10<sup>5</sup> cultured human monocyte-derived Dendritic cells (moDC) were washed and incubated 45 minutes on ice with 80 ul of CD279-muIg/Biotin (cat #549-030) at **10 µg/ml**. Cells were washed twice and incubated with 2<sup>o</sup> reagent Streptavidin/PE (Catalog #232-050), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of **0.57 log<sub>10</sub>** fluorescent units. This binding was blocked when reagent was pre incubated with 100 ug/ml of purified CD273-muIg (Catalog # 573-020).

\* **Research Use Only. Not for use in Diagnostic procedures..**

**Binding of CD279-muIg/Biotin +SA/PE to human moDC**

