

Human CD279(PD-1)-muIg Fusion Protein*

CATALOG#: 549-020

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 prone to cleavage.**

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 12 months after shipping date when stored as recommended. Ship Date:_____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 0.5 mg/ml Gentamicin Sulfate (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. Purity was >95% by SDS-PAGE.

PERFORMANCE: Five x 10⁵ 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° 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 log₁₀ fluorescent units. **This binding was blocked when cells were pre incubated with 100 ug/ml of purified CD279-muIg (Catalog # 549-020).**

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

Purified CD279-muIg blocks binding of CD279-muIg/Biotin +SA/PE to human moDC

