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## Human CD274(B7-H1)- $\mu$ Ig/Biotin Fusion Protein\*

CATALOG#: 541-030

QUANTITY: 25  $\mu$ g

CONCENTRATION: 0.5 mg/ml

**Molecular Structure:** A soluble fusion protein consisting of the murine CD8 alpha leader sequence, the mature extracellular (224aa) domain of human CD274 fused to murine IgG2a Fc + hinge (233aa).

**muCD8 alpha signal peptide residual amino acids+ linker:** (1) kqqapelrgsas

**CD274 mature EC: (224aa):**

(13)ftvtvpkdlyvveygsnmtieckfpvekqldlaalivywemedkniiqfvhgeedkqvqssyrqrarllkdqslgnaalqitdvklqdagvyrcmisyygadykritvkvnapynkinqrilv  
vdpvtseheltcqaegykpkaevitwssdhqvlsgkttttnskreeklfvntslrintttneifyctfrrldpeenhtaelvipeplahppnerthtr

**Linker +Murine IgG2a Hinge + Fc (235 aa):**

(237)gteprgptkpeppckcpapnllggpsvfifppkikdvmlislspivtcvvdvseddpdvqiswfvnnvevhtaqtqthredynstlrvsalpiqhqdwmmsgkefkckvnnkdlpapiert  
iskpkgsvrappqvyyvlppeemtkkqvtlcmvtdfmpediyvewtngktelnykntepvltdsgsyfmysklrvckknwvemsysscvsvehglhnhhtksfstrtpg(471)

Predicted monomeric (non glycosylated) molecular weight: 54.4 kd. The molecule is dimeric and runs at about 120 kd in SDS-PAGE under native conditions.

**Transfectant Cell Line:** CHO

**INFORMATION:** CD274 (B7-H1, PD-L1, Programmed Death Ligand) is a member of the B7 family and is expressed on a variety of tissues including lymphoid cells. It plays an important role in regulation of T cell activation, and is involved in progression of cancer, arthritis and HIV infection (3). CD274 binding to its receptor CD279 (PD-1) on activated T cells can decrease proliferation. Conversely, ligation of CD279 on primed T cells can stimulate IL-10 production. High levels of CD274 present in Renal cell carcinoma are associated with poor prognosis (1). Tumor expressed CD274 can increase apoptosis of tumor specific T cells resulting in better tumor cell survival (2). Gamma Interferon and PHA can up regulate CD274 expression on T cells.

**REFERENCES:** 1)Cancer Research (April 2006) **66**:3381. 2)J Molecular Medicine (Feb 2004) **81**(5):281. 3)Int J Hematol (Nov 2003) 78(4):321.

**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:** Human CD274- $\mu$ Ig fusion protein was Protein A purified from (low FBS containing) tissue culture supernatant of CHO transfectants, and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate by desalting column.

**PERFORMANCE:** Purity of recombinant protein was >90% by SDS-PAGE. N-terminal sequence was as predicted: KPQAP. Biotinylated recombinant protein was active in EIA, binding to anti-CD274 mAbs ANC6H1 (cat #274-030), clone M1H1, and to recombinant CD279(PD1), using SA/HRP for detection.

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