

Human CD244(2B4)-muIg Fusion Protein*

CATALOG#: 544-020

QUANTITY: 25 µg

CONCENTRATION: 0.5 mg/ml

Molecular Structure: A soluble molecule consisting of murine CD8 alpha signal peptide residual amino acids and linker: (1)kpqapegkgc(10) the mature extracellular domain of human CD244 (199aa): (11)qgsadhvvsisgvplqlqpnsiqtkvdsiawkkllpsqngfhhilkwengslpsntsndrfsfvknslsllikaaqqdsglyclevtsisgkvqtatfvfvdvkvekprrlqggqkildrgrcqvvalcvsrdgnvsyawyrgskliqtagnltyldeevdingthtytcvnsnpvsweshtlnltqdcqnahqefr(209) murine IgG2a Fc + hinge regions: (233aa) eprgptikpcppckcpapnllggpsvfifppkikdvlmislspivtcvvdvseddpcdvqiswfvnnvevhtaqtqthredynstlrsvsalpihqhdwmsgkefkckvnnkdlpapiertiskpksvrapqvyvlpppeemtkkqvltcmvtdfmpediyvewtngktelnykntepvldsdgsyfmysklrvekknwvernsyscsvvhgllnhhhttkfsrtpgk (442aa total). The molecule has a predicted monomeric non glycosylated molecular weight of 49.5 kd.. The molecule is dimeric. In SDS-PAGE, it runs at approximately 135 kD native, and 70 kD reduced.. CD244-muIg binds to recombinant CD48 in EIA and cell surface CD48 on Raji cell surface in FACS.

Transfectant Cell Line: CHO

INFORMATION: CD244 (2B4, SLAMF4) is a 66 kD member of the CD2/SLAM related receptor family (SRR). It is expressed on NK (3), Tcell subsets, monocytes and eosinophils(4). It is expressed at high levels on Leukemia initiating cells, and plays a role in their proliferative potential (5). In mice there are two transcription variants, a long form and a short form of CD244 each of which have distinct signaling properties. In humans, only the long form is expressed. Decreased CD244 expression on monocytes of SLE patients correlated (negatively) with autoantibody titers(2). CD244 mediated function in immune response can vary greatly dependant on the context of its ligation..

References: 1) Boles KS, Mathew PA, et al. (1999) Tissue Antigens 54(1): 27-34. 2) Mak A, AM Fairhurst, et al. (2017) *Clinical Rheumatology* 37(3): 811-816. doi.org/10.1007/s10067-017-3698-2. 3) Vacca P, MC Mingarri, et al. (2006) *Blood* 108: 4078-4085. 4) Munitz A, Levi-Schaffer F, et al. (2005) *J Immunol* 174(1): 110-118. 5) Zhang F, Zheng J, et al. (2017) *Haematologica* Doi: 10.3324/haematol.2016.151555.

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, 0.5mg/ml Gentamicin Sulfate (as a preservative).

PRODUCTION: Human CD244-muIg fusion protein was purified by affinity and size exclusion chromatography from (low FBS containing) tissue culture supernatant of CHO cell transfectants.

PERFORMANCE: Recombinant soluble CD244-muIg was tested for binding in FACS. Five x 10⁵ cultured human **Raji** cells per tube were washed and incubated 45 minutes on ice with 80 µl of Recombinant CD244-muIg at a concentration of 1 µg/ml. Cells were washed twice and incubated with 2^o reagent Goat anti-Mouse IgG/FITC (Catalog #232-011), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of 1.40 log₁₀ fluorescent units when compared to muIgFc Control Protein (Catalog # 581-020). * **Research Use Only. Not for use in Diagnostic procedures.**

Binding of Recombinant CD244-muIg +GAM/FITC to human Raji cells

