PERFORMANCE DATA SHEET
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Human CD244(2B4)-muIg /Biotin*

CATALOG#: 544-030
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 the mature extracellular domain of human CD244 (199aa) and murine IgG2a Fc + hingeregions:
(1)**kpqapegkgc**(10),(11)**qgsadhvvsisgvplqlqpnsiqtkvdsiawkkllpsqngfhhilkwengslpsntsndrfsfivknlsllikaaqqqdsglyclevtsisgkvqtatfqvfvfdk vekprlqgqgkildrgrcqvalsclvsrdgnvsyawyrgskliqtagnltyldeevdingthtytcnvsnpvsweshtlnltqdcqnahqefr**(209)(233aa)**eprgptikpcppckcpapnllg gpsvfifppkikdvlmislspivtcvvvdvseddpdvqiswfvnnvevhtaqtqthredynstlrvvsalpiqhqdwmsgkefkckvnnkdlpapiertiskpkgsvrapqvyvlpppeeemtkkqvtltcmvt ddfmpediyvewtnngktelnykntepvldsdgsyfmysklrvekknwvernsyscsvvheglhnhhttksfsrtpgk** (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 apporoximately 135 kD native, and 70 kD reduced
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 Leuikemia 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.
CD244-muIg binds to recombinant CD48 in EIA and to cell surface CD48 on Raji cell surface in FACS.
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.

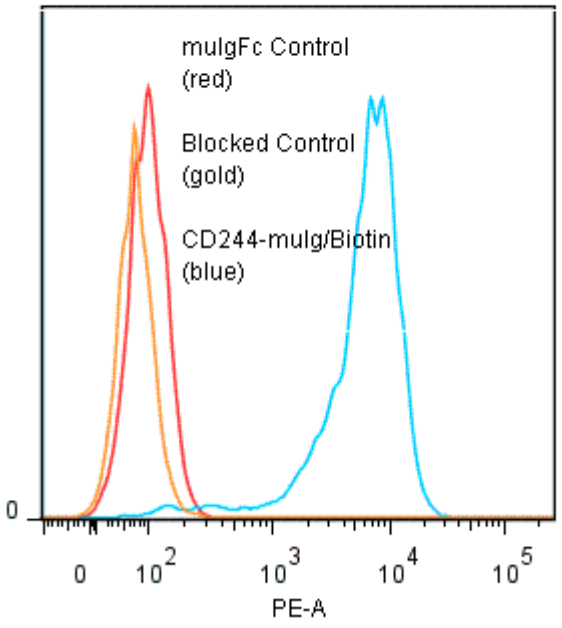
PRODUCT STABILITY: Product should retain activity for at least 6 months after shipping date when stored as recommended. Ship Date:_____

BUFFER: 50 mM Sodium Phosphate pH 7.5, 100 mM Potassium Chloride, 150mM NaCl, 5% Glycerol, 0.2% BSA, 0.04% NaN_3 (as a preservative).

PRODUCTION: Fusion protein from (low FBS containing) tissue culture supernatant of transfectants was purified using affinity and size exclusion chromatography), and reacted with NHS-Biotin. Unconjugated Biotin was removed from conjugate by desalting.

PERFORMANCE: CD244-muIg/Biotin was tested for binding ot cell surface CD48 on Raji cells. Five x 10^5 cultured **Raji** cells per tube were washed and incubated 45 minutes on ice with 80 µl of CD244-muIg/Biotin at a concentration of **10 µg/ml**. Cells were washed twice and incubated with 2° reagent Streptavidin/R-PE (Catalog #253-050), after which they were washed three times, fixed and analyzed by FACS. Cells stained positive with a mean shift of **1.79** $\log_{10}$ fluorescent units when compared to a muIgFc /Biotin negative control (Cat #581-030). Binding was blocked when cells were pre blocked 10 minutes with 20 µl of anti-CD48 antibody (Clone 5-4.8, Catalog # 199-020) at a concentration of 0.5 mg/ml.
**** Research Use Only. Not for use in Diagnostic procedures.***

Binding of Recombinant CD244-muIg/Biotin +SA/PE to human Raji cells



Ancell Corporation P.O. Box 87 Bayport, MN 55003-0087 USA
Phone: Toll free 800-374-9523 or 651-439-0835 Fax: 651-439-1940