

## 2B4/CD244 Protein, Human, Recombinant (aa 22-221, His & Avi), Biotinylated

### General Information

Synonyms:	NAIL;CD244;SLAMF4;h2B4;NKR2B4;Nmrk;CD244 antigen;2B4
Protein Construction:	Cys22-Arg221
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9BZW8-2
Molecular Weight:	24.9 kDa (predicted). Due to glycosylation, the protein migrates to 48-70 kDa based on Tris-Bis PAGE result.

### QC Testing

Biological Activity:	Immobilized Biotinylated Human 2B4, His Tag at 0.5µg/ml (100µl/well) on the streptavidin precoated plate (5µg/ml). Dose response curve for Human CD48, hFc Tag with the EC50 of 29.3ng/ml determined by ELISA.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

2B4 (CD244) is expressed by memory-phenotype CD8(+) T cells and all natural killer (NK) cells. The ligand for 2B4, CD48, is expressed on hematopoietic cells. 2B4 is conserved in humans and mice, and a number of reports have linked 2B4 with activation of lymphocytes. Engagement of 2B4 on NK cell surfaces with specific antibodies or CD48 can trigger cell mediated cytotoxicity, interferon  $\gamma$  secretion, phosphoinositol turnover and NK cell invasiveness.

Reference

Velikovsky C A, et al. Structure of Natural Killer Receptor 2B4 Bound to CD48 Reveals Basis for Heterophilic Recognition in Signaling Lymphocyte Activation Molecule Family[J]. Immunity, 2007, 27(4):0-584.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481