Data Sheet (Cat.No.TMPJ-01086)

2B4/CD244 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	NK cell type I receptor protein 2B4;Natural killer cell receptor 2B4;SLAM family member 4; Signaling lymphocytic activation molecule 4;SLAMF4;CD244;NKR2B4
Protein Construction:	Gln20-Asn221
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q07763
Molecular Weight:	35-60 KDa (reducing condition)
AA Sequence:	Gln20-Asn221

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

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:

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

Natural killer cell receptor 2B4 (2B4/CD244)is a 66 kDa type I transmembrane glycoprotein in the SLAM subgroup of the CD2 protein family. SLAM family proteins have an extracellular domain (ECD) with two or four Ig-like domains and at least two cytoplasmic immunoreceptor tyrosine-based switch motifs (ITSMs). 2B4 interacts with CD48, while other SLAM family proteins interact in a homophilic manner. The mouse 2B4 cDNA encodes a 397 amino acid (aa) precursor that includes a 19 aa signal sequence, a 207 aa ECD with one Ig-like V-type and one C2-

type Ig-like domain, a 21 aa transmembrane segment, and a 150 aa cytoplasmic domain with four ITSMs. Within the ECD, mouse 2B4 shares 46% and 68% aa sequence identity with human and rat 2B4, respectively. 2B4/CD48 signaling cooperates with other receptor systems to either promote or inhibit NK and CD8+ T cell activation. The inhibitory activities are distinct from those of MHC I restricted inhibitory NK cell receptors. Ligation of 2B4 with antibodies or CD48 constructs can directly trigger inhibitory signaling or disrupt an inhibitory interaction, leading to cellular activation. 2B4 can also induce signaling through CD48.

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