

## Recombinant Mouse 2B4/CD244 Protein (His Tag)

**Catalog No.** PKSM041150

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

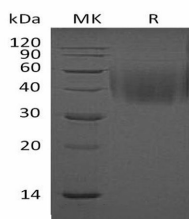
### Description

<b>Synonyms</b>	Natural killer cell receptor 2B4;NK cell type I receptor protein 2B4;NKR2B4;SLAM family member 4;SLAMF4;Signaling lymphocytic activation molecule 4;CD244
<b>Species</b>	Mouse
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Gln20-Asn221
<b>Accession</b>	Q07763
<b>Calculated Molecular Weight</b>	23.5 kDa
<b>Observed molecular weight</b>	35-60 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

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.