Human 2B4 / SLAMF / CD244 Protein (His Tag)

Catalog Number: **10042-H08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

2B4; NAIL; NKR2B4; Nmrk; SLAMF4

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Arg 221) of human 2B4 (NP_057466.1) was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA . Immobilized human 2B4 at 2 μg/ml (100 μl/well) can bind human CD48. The EC_{50} of human CD48 is 0.39 μg/ml .

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Cys 22

Molecular Mass:

The recombinant 2B4 comprises 211 amino acids and predicts a molecular mass of 23.8 kDa. As a result of glycosylation, the rh 2B4 protein migrates as an approximately 45-50 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

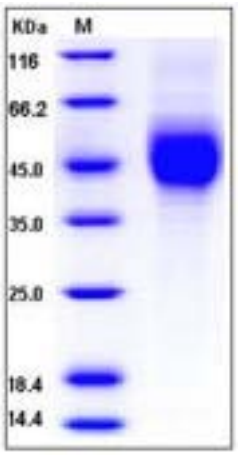
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The CD244 antigen, also known as 2B4, is a cell surface glycoprotein implicated in the regulation of natural killer and T lymphocyte function. 2B4 is a member of the signaling lymphocyte activation molecule (SLAM)-related receptor family and is important for stimulating NK cell cytotoxicity and cytokine production, which is expressed on all NK cells, a subpopulation of T cells, monocytes and basophils. The 2B4 antigen identified on NK cells and T cells is capable of transmitting stimulatory signals and non-MHC-restricted killing. Reported as an activating receptor, human 2B4 can effectively activate and enhance NK cell–mediated cytotoxicity, induce secretion of IFN-γ and matrix metalloproteinases (MMPs), as well as NK cell invasiveness. As a cell surface glycoprotein of the Ig-superfamily structurally related to CD2-like molecules such as CD2, CD48, CD58, CD84, Ly-9, and SLAM, 2B4 (CD244) is expressed on all human NK cells, a subpopulation of T cells, basophils and monocytes. 2B4 activates NK cell mediated cytotoxicity, induces secretion of IFN-gamma and matrix metalloproteinases, and NK cell invasiveness.

References

1.Nakajima H, *et al.* (2000) 2B4: an NK cell activating receptor with unique specificity and signal transduction mechanism. Hum Immunol. 61(1): 39-43. 2.Chuang SS, *et al.* (2001) 2B4 (CD244)-mediated activation of cytotoxicity and IFN-gamma release in human NK cells involves distinct pathways. J Immunol. 167(11): 6210-6. 3.McNerney ME, *et al.* (2005) 2B4 (CD244) is a non-MHC binding receptor with multiple functions on natural killer cells and CD8+ T cells. Mol Immunol. 42(4): 489-94.