2B4/CD244 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	2B4/CD244, Recombinant Protein
Full Product Name	Recombinant Human 2B4/CD244 protein (His tag)
Product Gene Name	2B4/CD244 recombinant protein
Product Synonym Names	Natural killer cell receptor 2B4; NK cell activation-inducing ligand; NAIL; NKR2B4; h2B4; SLAM family member 4; SLAMF4; CD244; 2B4
Sequence	Met1-Arg22 1
Host	HEK293 Cells
Form/Format	Lyophilized from sterile PBS, pH 7.4.
Purity/Purification	>95 % as determined by reducing SDS-PAGE.
Preparation and Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 degree C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months.
Molecular Weight	370
OMIM	605554
3D Structure	ModBase 3D Structure for Q9BZW8
Species	Human
Tag	C-His
Protein Construction	A DNA sequence encoding the Human 2B4 protein (Q9BZW8)(Met1-Arg221) was expressed with a C-His.$
Product Categories/Family for 2B4/CD244 recombinant protein	immunology; Stem cells
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for 2B4/CD244 recombinant protein	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-gamma 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.
Other Notes	Small volumes of 2B4/CD244 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for 2B4/CD244 purchase	MBS2571409 is a recombinant protein targeting 2B4/CD244. Also known as Recombinant Human 2B4/CD244 protein (His tag). Host: HEK293 Cells.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for 2B4/CD244. It may not necessarily be applicable to this product.

NCBI GI #	47605541
NCBI GeneID	51744
NCBI Accession #	Q9BZW8.2
UniProt Primary Accession #	Q9BZW8
UniProt Secondary Accession #	Q5VYI2; Q5VYI6; Q5VYI7; Q96T47; Q9NQD2; Q9NQD3; Q9Y288
UniProt Related Accession #	Q9BZW8
NCBI Official Full Name	Natural killer cell receptor 2B4
NCBI Official Synonym Full Names	CD244 molecule, natural killer cell receptor 2B4
NCBI Official Symbol	CD244
NCBI Official Synonym Symbols	2B4; NAIL; Nmrk; NKR2B4; SLAMF4
UniProt Protein Name	Natural killer cell receptor 2B4
UniProt Synonym Protein Names	NK cell activation-inducing ligand; NAIL; NK cell type I receptor protein 2B4; NKR2B4; h2B4; SLAM family member 4; SLAMF4; Signaling lymphocytic activation molecule 4; CD_antigen: CD244
UniProt Gene Name	CD244
UniProt Synonym Gene Names	2B4; NAIL; NKR2B4; h2B4; SLAMF4
UniProt Entry Name	CD244_HUMAN
NCBI Protein Information	natural killer cell receptor 2B4; h2B4; SLAM family member 4; NK cell activation-inducing ligand; NK cell type I receptor protein 2B4; NK cell activation inducing ligand NAIL; signaling lymphocytic activation molecule 4
NCBI Summary for 2B4/CD244	This gene encodes a cell surface receptor expressed on natural killer (NK) cells (and some T cells) that mediate non-major histocompatibility complex (MHC) restricted killing. The interaction between NK-cell and target cells via this receptor is thought to modulate NK-cell cytolytic activity. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Oct 2009]
UniProt Comments for 2B4/CD244	CD244: Modulate other receptor-ligand interactions to enhance leukocyte activation. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral; Receptor, misc. Chromosomal Location of Human Ortholog: 1q23.3 Cellular Component: plasma membrane; integral to membrane; external side of plasma membrane Molecular Function: protein binding; receptor activity Biological Process: signal transduction; blood coagulation; leukocyte migration Disease: Rheumatoid Arthritis
Research Articles on 2B4/CD244	**1.** Blockade of 2B4/CD48 interaction resulted in improvement in function via perforin expression and degranulation as measured by CD107a surface mobilization on HTLV-1 specific CD8+ T cells.
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