

CD48 Protein, Human, Recombinant (hFc & Avi), Biotinylated

General Information

Synonyms:	CD48 molecule; Blast-1; hCD48; BCM1; MEM-102; mCD48; SLAMF2; BLAST1; BLAST
Protein Construction:	A DNA sequence encoding the human CD48 (NP_001769.2)(Met1-Ser220) was expressed with a c-terminal AVI tagged Fc region of human IgG1 at the C-terminus (Fc-AVI). The expressed protein was biotinylated in vivo by the Biotin-Protein ligase (BirA enzyme) which is co-expressed. Predicted N terminal: Gln 27
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P09326-1
Molecular Weight:	50.88 kDa (predicted); 63.75 kDa (reducing conditions)

QC Testing

Biological Activity:	Immobilized Human 2B4/CD244 (His Tag) at 2 µg/mL (100 µL/well) can bind Human CD48 (hFc & AVI Tag), Biotinylated, the EC50 of Human CD48 (hFc & AVI Tag), Biotinylated is 15-120 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE.
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, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

Cluster of Differentiation 48 (CD48), also known as SLAMF2, BCM-1 and BLAST-1, is a GPI-linked protein belonging to the CD2 subfamily of immunoglobulin superfamily molecules. CD2 and 2B4 (CD244) are known ligands for CD48.

CD48 protein is expressed on most lineage-committed hematopoietic cells but not on hematopoietic stem cells or multipotent hematopoietic progenitors. CD48 protein performs biological functions in a variety of processes including adhesion, pathogen recognition, cellular activation, and cytokine regulation, and emerges as a critical effector molecule in immune responses. Cancer Immunotherapy Co-inhibitory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection: Antibodies Immune Checkpoint Detection: ELISA Antibodies Immune Checkpoint Detection: FCM Antibodies Immune Checkpoint Detection: ICC Antibodies Immune Checkpoint Detection: IHC Antibodies Immune Checkpoint Detection: IP Antibodies Immune Checkpoint Detection: WB Antibodies Immune Checkpoint Proteins Immune Checkpoint Targets Immunotherapy Targeted Therapy

Reference

Messmer B, et al. (2006) CD48 stimulation by 2B4 (CD244)-expressing targets activates human NK cells. *J Immunol.* 176(8): 4646-50.

Milstein O, et al. (2008) Nanoscale increases in CD2-CD48-mediated intermembrane spacing decrease adhesion and reorganize the immunological synapse. *J Biol Chem.* 283(49): 34414-22.

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