

## CD48 Protein, Human, Recombinant (hFc)

### General Information

Synonyms:	BLAST;BLAST1;SLAMF2;hCD48;mCD48;Blast-1;CD48 molecule;MEM-102;BCM1
Protein Construction:	A DNA sequence encoding the human CD48 (NP_001769.2) (Met1-Ser220) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Gln 27
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P09326-1
Molecular Weight:	49.1 kDa (predicted); 64.5 kDa (reducing conditions)

### QC Testing

Biological Activity:	1. Measured by its binding ability in a functional ELISA. 2. Immobilized human 2B4-His , at 10 µg/mL (100 µL/well) can bind human CD48-Fc. The EC50 of human CD48-Fc is 0.03-0.06µg/mL.
Purity:	> 90 % 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:**  
Reconstituted with sterile deionized water to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

#### 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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