

CD48 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	MEM-102;BLAST-1;Bcm-1;CD48 molecule;AW610730;BLAST1;BLAST;SLAMF2;AI449234;BCM1;Sgp-60
Protein Construction:	Phe23-Arg216
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q18PH8
Molecular Weight:	23.1 kDa (predicted); 45-50 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it.
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 0.2 μm filtered solution of PBS, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

CD48 is a GPI-linked protein in the CD2 family of immunoglobulin superfamily proteins. CD48 is expressed on most lineage-committed hematopoietic cells but not on hematopoietic stem cells or multipotent hematopoietic progenitors. Among dendritic cells (DC), CD48 is selectively expressed on circulating myeloid DC and resident bone marrow and thymus DC. CD2, 2B4, and heparan sulfate function as CD48 ligands. CD48 is competent to transduce signals and can also trigger signaling through CD2 or 2B4. CD48 expressed on NK cells is coactivating, whereas CD48 expressed on other cell types inhibits NK cell activation.

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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