

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey CD48/SLAMF2 protein		
	Cynomolgus Monkey CD48/SLAMF2 (Gln27-Ser217) Accession # XP_005541296.1	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Gln27 inferred from enzymatic pyroglutamate treatment revealing Gly28		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	49 kDa		

SPECIFICATIONS

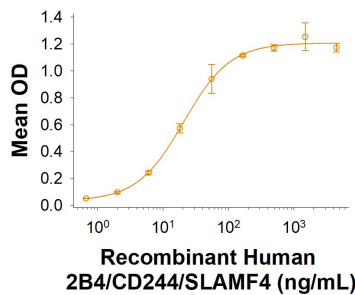
SDS-PAGE	67-78 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. Recombinant Cynomolgus Monkey CD48/SLAMF2 Fc Chimera (Catalog # 10362-CD) is immobilized at 0.5 µg/mL, 100 µL/well, the concentration of Recombinant Human 2B4/CD244/SLAMF4 Fc Chimera (Catalog # 1039-2B) that produces 50% of the optimal binding response is approximately 10-60 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 200 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

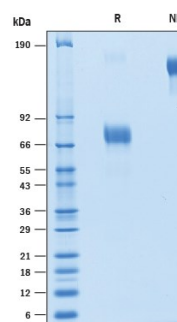
DATA

Binding Activity



When Recombinant Cynomolgus Monkey CD48/SLAMF2 Fc Chimera (Catalog # 10362-CD) is immobilized at 0.5 µg/mL, 100 µL/well, the concentration of Recombinant Human 2B4/CD244/SLAMF4 Fc Chimera (Catalog # 1039-2B) that produces 50% of the optimal binding response is approximately 10-60 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Cynomolgus Monkey CD48/SLAMF2 Fc Chimera (Catalog # 10362-CD) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 67-78 kDa and 135-155 kDa, respectively.

BACKGROUND

CD48, also known as BLAST-1, BCM-1, and SLAMF2, is a 65 kDa GPI-linked protein in the CD2 family of immunoglobulin superfamily molecules (1-3). The cynomolgus CD48 cDNA encodes a 241 amino acid (aa) precursor that includes a 26 aa signal sequence, a 191 aa mature protein that contains one Ig-like V-type domain and one Ig-like C2-type domain, and a 23 aa C-terminal propeptide (4). A soluble form of CD48 has been detected in the serum of lymphoid leukemia and arthritis patients (5). Cynomolgus CD48 shares approximately 90% aa sequence identity with human CD48. CD48 is expressed on most lineage-committed hematopoietic cells but not on hematopoietic stem cells or multipotent hematopoietic progenitors (4, 6). Among dendritic cells (DC), CD48 is selectively expressed on circulating myeloid DC and resident bone marrow and thymus DC (7). CD2, 2B4, and heparin sulfate function as CD48 ligands (8-10). CD48 is competent to transduce signals and can also trigger signaling through CD2 or 2B4 (8, 11). CD48-CD2 interactions promote T cell activation and class switching to IgG2a in B cells (8, 12). High affinity CD48-2B4 interactions can either promote or inhibit NK cell and cytotoxic T cell (CTL) activation (7, 11, 13, 14). In mouse, CD48-2B4 ligation does not directly trigger CTL activity but enhances signaling from the T cell receptor (13). CD48-2B4 mediated inhibition of NK cell activity is distinct from MHC I-restricted mechanisms (15). CD48 expressed on NK cells is co-activating, whereas CD48 expressed on other cell types inhibits NK cell activation (14). Both CD48 expressing and non-expressing cells can be targets of NK cell or CTL-mediated lysis (13, 16).

References:

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