Recombinant Cynomolgus Monkey LILRB4/CD85k/ILT3 Fc Chimera

Catalog Number: 11420-T4

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey LILRB4/CD85k/ILT3 protein

Cynomolgus LILRB-4 (Gly24-Glu259) Accession # XP_015297198.1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Gly24
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	53 kDa

SPECIFICATIONS

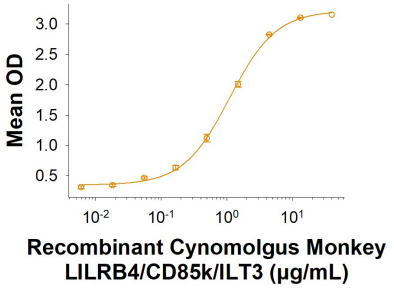
SDS-PAGE	55-66 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. Recombinant Cynomolgus Monkey LILRB4/CD85k/ILT3 Fc Chimera binds to Recombinant Human Apolipoprotein E3 Protein (Catalog # 4144-AE) with a ED_{50} of 0.900-9.00 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, 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 500 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.** • 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.

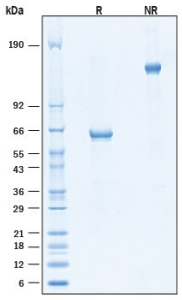
DATA

Binding Activity



Recombinant Cynomolgus Monkey LILRB4/CD85k/ILT3 Fc Chimera Protein Binding Activity. Measured by its binding ability in a functional ELISA. Recombinant Cynomolgus Monkey LILRB4/CD85k/ILT3 Fc Chimera (Catalog # 11420-T4) binds to Recombinant Human Apolipoprotein E3 Protein (Catalog # 4144-AE) with a ED_{50} of 0.900-9.00 µg/mL.

SDS-PAGE



Recombinant Cynomolgus Monkey LILRB4/CD85k/ILT3 Fc Chimera Protein SDS-PAGE. 2 µg/lane of Recombinant Cynomolgus Monkey LILRB4/CD85k/ILT3 Fc Chimera Protein (Catalog # 11420-T4) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 55-66 kDa and 110-130 kDa, respectively.

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BACKGROUND

LILRB4, also known as ILT3, CD85k, and LIR5, is an approximately 60 kDa transmembrane glycoprotein that negatively regulates immune cell activation (1). Based on the similarity as human LILRB4, mature cynomolgus monkey LILRB4 is predicted to consist of an extracellular domain (ECD) with two Ig-like domains, a transmembrane segment, and a cytoplasmic domain with 3 immunoreceptor tyrosine-based inhibitory motifs (ITIM) (2). The mature ECD of cynomolgus monkey LILRB4 shares 81% and 99% amino acid identity with human and rhesus LILRB4, respectively. Alternative splicing of LILRB4 generates an isoform that lacks the first ITIM and a secreted isoform that circulates in the serum of cancer patients (3, 4). LILRB4 is expressed on dendritic cells (DC), monocytes, macrophages, and vascular endothelial cells (EC) (2, 5, 6). Ligation of LILRB4 triggers ITIM-mediated inhibition of cell-activating signaling, leading to enhanced immune tolerance and reduced allogeneic graft rejection (2, 4, 7, 8). Soluble LILRB4 induces the differentiation of CD8+ T suppressor cells (Ts) that can inhibit the effector functions of CD4+ Th cells and CD8+ CTL (4, 7, 9). In turn, CD8+ Ts cells induce LILRB4 up-regulation and a tolerogenic phenotype in monocytes, DC, and EC (5, 6, 8, 10, 11). Recently, a novel anti-LILRB4 CAR-T Cell was been used to treat monocytic acute myeloid leukemia in humanized hematopoietic-reconstituted mice models (12).

References:

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