Biotinylated Recombinant Human CD8 alpha Fc Chimera

Catalog Number: BT10927

DESCRIPTION

Source

Chinese Hamster Ovary cell line, CHO-derived human CD8 protein

Human CD8 alpha (Ser22-Asp182) Accession # P01732.1	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Se22
Structure / Form	Disulfide-linked homodimer, Biotinylated via amines
Predicted Molecular Mass	44 kDa

SPECIFICATIONS

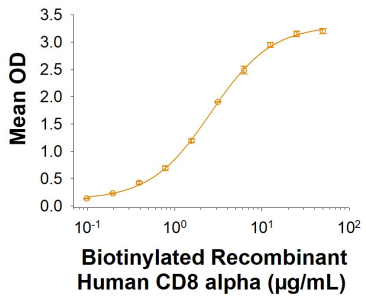
SDS-PAGE	52-64 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human CD8 alpha Fc Chimera bind to Recombinant Human PILR-alpha Protein (Catalog # 6484-PR) with an ED_{50} of 1.00-10.0 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of 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 250 µg/mL in water.
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. • 2 weeks, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

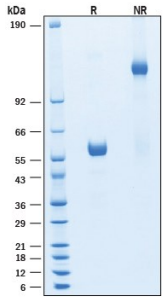
DATA

Binding Activity



Biotinylated Recombinant Human CD8 alpha Fc Chimera Protein Binding Activity. Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human CD8 alpha Fc Chimera Protein (Catalog # BT10927) binds to Recombinant Human PILR-alpha Protein (Catalog # 6484-PR) with an ED_{50} of 1.00-10.0 µg/mL

SDS-PAGE



Biotinylated Recombinant Human CD8 alpha Fc Chimera Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human CD8 alpha Fc Chimera Protein (Catalog # BT10927) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 52-64 kDa and 100-130 kDa, respectively.

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BACKGROUND

CD8, also known as Ly2 or Leu2, is a heterodimeric glycoprotein (alpha and beta subunits) that functions in conjunction with the T cell receptor in the recognition of MHC class I/peptide complexes (1, 2). CD8 alpha is expressed on double positive (CD4+ CD8+) thymocytes and mature CD8+ cytolytic T cells (CTL) (3-5), intraepithelial lymphocytes (IEL) (6), some γδ T cells (7), subsets of thymic and splenic dendritic cells (DC) (88), and peritoneal mast cells (9). It can form disulfide linked homodimers or heterodimers with CD8β (10). Thymic CD8+ DC express primarily αβ heterodimers, while splenic CD8+ DC primarily express αα homodimers (8). CD8a+ DC can present viral antigenic peptides in complex with MHC I and prime CTL responses (11). The approximately 35 kDa mature mouse CD8α consists of a 169 amino acid (aa) extracellular domain (ECD) with one Iglike domain, a 21 aa transmembrane segment, and a 30 aa cytoplasmic domain (12). Within the ECD, mouse CD8α shares 49% and 64% aa sequence identity with human and rat CD8α, respectively.

References:

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