

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human CD8 protein			
	Human CD8 α (Ser22-Asp182) Accession # P01732.1	IEGRMD	Human IgG1 (Pro100-Lys330)	Avi-tag
	N-terminus		C-terminus	
N-terminal Sequence	Ser22			
Analysis				
Structure / Form	Biotinylated via Avi-tag.			
Predicted Molecular Mass	46 kDa			

SPECIFICATIONS

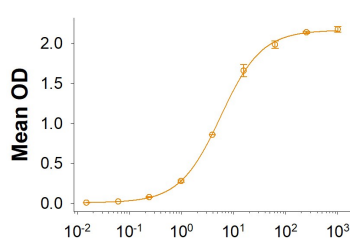
SDS-PAGE	55-61 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. When Human CD8 α Antibody (Catalog # MAB3803) is immobilized at 2 μ g/mL, 100 μ g/mL, Biotinylated Recombinant Human CD8 α Fc Chimera Avi-tag binds with an ED ₅₀ of 2.00-12.0 ng/mL.
Endotoxin Level	<0.10 EU per 1 μ g 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 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 μ g/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

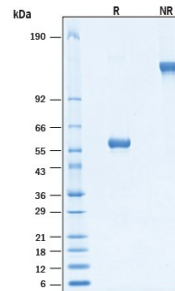
Binding Activity



When Human CD8 α Antibody (Catalog # [MAB3803](#)) is immobilized at 2 μ g/mL, 100 μ g/mL, Biotinylated Recombinant Human CD8 α Fc Chimera Avi-tag (AV110927) binds with an ED₅₀ of 2.00-12.0 ng/mL.

Biotinylated Recombinant Human CD8 α Fc Chimera Avi-tag (ng/mL)

SDS-PAGE



Biotinylated Recombinant Human CD8 α Fc Chimera Avi-tag Protein SDS-PAGE. 2 μ g/lane of Biotinylated Recombinant Human CD8 α Fc Chimera Avi-tag Protein (Catalog # AV110927) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 55-61 kDa and 110-120 kDa, respectively.

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 $\gamma\delta$ T cells (7), subsets of thymic and splenic dendritic cells (DC) (8), and peritoneal mast cells (9). It can form disulfide linked homodimers or heterodimers with CD8 β (10). Thymic CD8+ DC express primarily $\alpha\beta$ heterodimers, while splenic CD8+ DC primarily express $\alpha\alpha$ homodimers (8). CD8 α + DC can present viral antigenic peptides in complex with MHC I and prime CTL responses (11). The approximately 35 kDa mature mouse CD8 α 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 CD8 α shares 49% and 64% aa sequence identity with human and rat CD8 α , respectively. Our Avi-tag Biotinylated human CD8 α features biotinylation at a single site contained within the Avi-tag, a unique 15 amino acid peptide. Protein orientation will be uniform when bound to streptavidin-coated surface due to the precise control of bionylation and the rest of the protein is unchanged so there is no interference in the protein bioactivity.

References:

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