

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human Common gamma Chain/IL-2 R gamma protein Leu23-Asn254 with a C-terminal Avi-tag & 6-His tag Accession # P31785.1
N-terminal Sequence Analysis	Leu23
Structure / Form	Biotinylated via Avi-tag
Predicted Molecular Mass	32 kDa

SPECIFICATIONS

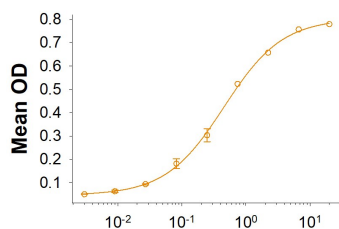
SDS-PAGE	60-67 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human Common gamma Chain Avi-tag His-tag binds to Recombinant Human CD25/IL-2R alpha Protein (Catalog # 223-2A), Recombinant Human IL-2R beta Protein (Catalog # 224-2B), and Recombinant Human IL-2 Protein (Catalog # 202-IL) with an ED ₅₀ of 0.100-1.00 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 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. <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

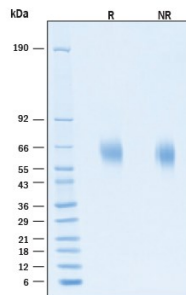
Binding Activity



Biotinylated Recombinant Human Common gamma Chain Avi-tag (µg/mL)

Biotinylated Recombinant Human Common gamma Chain Avi-tag His-tag Protein Binding Activity. Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human Common gamma Chain Avi-tag His-tag (Catalog # AVI384) binds to Recombinant Human CD25/IL-2R alpha Protein (Catalog # 223-2A), Recombinant Human IL-2R beta Protein (Catalog # 224-2B) and Recombinant Human IL-2 Protein (Catalog # 202-IL) with an ED₅₀ of 0.100-1.00 µg/mL.

SDS-PAGE



Biotinylated Recombinant Human Common gamma Chain Avi-tag His-tag Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human Common gamma Chain Avi-tag His-tag Protein (Catalog # AVI384) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 60-67 kDa, under reducing conditions.

BACKGROUND

The γ chain of the high affinity functional human IL-2 receptor complex belongs to the hematopoietin receptor family. IL-2 R_γ is a 369 amino acid residue protein consisting of a 22 residue signal sequence, a 232 residue extracellular domain, a 29 residue transmembrane domain and an 86 residue cytoplasmic domain. Although IL-2 R_γ by itself does not bind IL-2 with any appreciable affinity, it is required for IL-2 receptor signaling. Besides IL-2, the γ chain has been shown to be a component of the functional receptor complexes for IL-4, IL-7, IL-9 and IL-15. It has been proposed that IL-2 R_γ be designated the common γ chain (γC). The site of molecular defects in X-linked SCID (severe combined immunodeficiency) has now been mapped to the IL-2 R_γ gene. Our Avi-tag Biotinylated IL-2 R_γ 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 biotinylation and the rest of the protein is unchanged so there is no interference in the protein's bioactivity.

References:

1. Minami, Y. *et al.* (1993) *Annu. Rev. Immunol.* **11**:245.
2. Noguchi, M. *et al.* (1993) *Science* **262**:1877.