

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human IL-2 R beta/IL-2 R gamma protein		
	Human IL-2RB (Ala27-Asp239) Accession # P14784.1	IEGR	Human IgG ₁ (Glu99-Lys330) (with modifications)
	Human IL-2RG (Leu23-Asn254) Accession # P31785.1	IEGR	Human IgG ₁ (Glu99-Lys330) (with modifications)
N-terminus		C-terminus	

N-terminal Sequence Analysis Ala 27 (IL-2R beta) & Leu 23 (IL-2R gamma)

Structure / Form Disulfide-linked heterodimer

Predicted Molecular Mass 51 kDa (IL-2R beta) & 54 kDa (IL-2 R gamma)

SPECIFICATIONS

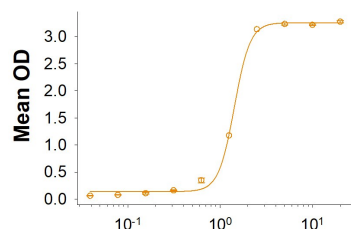
SDS-PAGE	62-68 kDa (IL-2R beta) & 85-93 kDa (IL-2R gamma)
Activity	Measured by its binding ability in a functional ELISA. Recombinant Human IL-2R beta Fc/IL-2R gamma Fc Heterodimer binds to Recombinant Human IL-2 Protein, CF (Catalog # BT-002) with an ED ₅₀ of 0.300-3.00 µg/mL.
Endotoxin Level	<0.10 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 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. <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

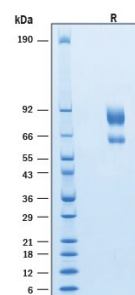
Binding Activity



Recombinant Human IL-2R beta Fc/
IL-2R gamma Fc Heterodimer (µg/mL)

Recombinant Human IL-2R beta Fc/IL-2R gamma Fc Heterodimer Protein Binding Activity. Measured by its binding ability in a functional ELISA. Recombinant Human IL-2R beta Fc/IL-2R gamma Fc Heterodimer Protein (Catalog # 11686-2B) binds to Recombinant Human IL-2 Protein, CF (Catalog # BT-002) with an ED₅₀ of 0.300-3.00 µg/mL.

SDS-PAGE



Recombinant Human IL-2R beta Fc/IL-2R gamma Fc Heterodimer Protein SDS-PAGE. 2 µg/lane of Recombinant Human IL-2R beta Fc/IL-2R gamma Fc Heterodimer Protein (Catalog # 11686-2B) was resolved with SDS-PAGE under reducing (R) condition and visualized by Coomassie® Blue staining, showing bands at 62-68 kDa (IL-2R beta) & 85-93 kDa (IL-2R gamma).

BACKGROUND

Interleukin-2 receptor subunit beta (IL-2 RB), also known as high affinity IL-2 receptor subunit beta, interleukin-15 receptor subunit beta, p70-75 (p75), and CD122, is a member of the cytokine receptor superfamily that plays a role in T cell-mediated immune responses (1, 2). Human IL-2 RB consists of an extracellular domain (ECD) containing a fibronectin type III domain and a WSXWS motif, a type I transmembrane domain, and a cytoplasmic tail. The gamma chain of the high affinity functional human IL-2 receptor complex belongs to the hematopoietin receptor family. IL-2 R gamma 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. Functional IL-2 receptors can exist in two affinity states on cell surfaces: the high affinity complex consisting of heterotrimers of the alpha, beta, and gamma chains and the intermediate affinity complex comprising heterodimers of the beta and gamma chains (2, 3). Individual beta chains and alpha chains exhibit low affinity IL-2 binding and the gamma chain alone does not bind IL-2. In addition to their involvement in IL-2 mediated signal transduction, both the beta chain and gamma chain have been shown to be required for IL-15 mediated signaling (4).

References:

1. Jia, Z. *et al.* (2019) *Int. Immunopharmacol.* **74**:105716.
2. Zhang, Z. *et al.* (2019) *J. Exp. Med.* **216**:1311.
3. Zhou, X. *et al.* (2019) *Fish & Shellfish Immunol.* **93**:641.
4. Fernandez, I. *et al.* (2019) *J. Exp. Med.* **216**:1255.