

## Technical Data Sheet

### Biotinylated Human CD25 (IL-2R) (C-Fc-Avi)

**Catalog Number:** 812803, 812804

**Size:** 25 ug, 100 ug

**Target Name:** IL2RA, CD25, p55

**Regulatory Status:** RUO

#### Product Details

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**Application:** ELISA, BLI

**Format:** Liquid, Biotinylated

**Expression Host:** CHO

**Species:** Human

**Sources:** Recombinant Human CD25 (Glu22-Cys213) with C-terminus Fc-Avi-tag is expressed in CHO cell. This protein was site-specifically labeled with Biotin by BirA ligase.

**Accession Number:** P01589

**Molecular Weight:** The protein has a predicted molecular weight of 50.2 kDa. Under DTT-reducing conditions, it migrates at approximately 65 kDa on SDS-PAGE.

**Affinity Tag:** C-Fc-Avi

**Purity:** >95% based on SDS-PAGE under reducing condition

**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered

**Endotoxin level:** Not tested

**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

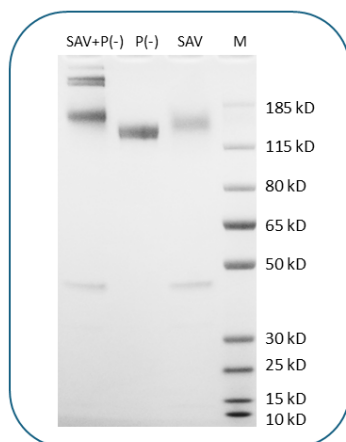
#### Background Information

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CD25 (IL2RA), a type I transmembrane glycoprotein, is expressed on activated T cells, regulatory T cells, and dendritic cells. It binds IL-2 with low affinity on its own, but upon associating with the IL-2 receptor beta (CD122) and common gamma chain (CD132), it forms a high-affinity complex that triggers intracellular signaling pathways like MAPK and JAK/STAT. CD25 is involved in immune regulation and plays a role in autoimmune diseases, including type 1 diabetes. Soluble CD25 (sIL-2Ralpha) is released during immune responses and is a marker for tumor burden in hematological malignancies, including leukemias and lymphomas, as well as some solid tumors like melanoma and carcinomas. The presence of sIL-2Ralpha in circulation reflects tumor activity and is associated with immune modulation in cancer progression.

**Product Data**


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Human CD25 Protein (C-Fc-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under reducing (P-) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the CD25 protein exceeds 90%.