

## Technical Data Sheet

### Human CD25 (IL-2R $\alpha$ ;) Protein (C-Fc)

**Catalog Number:** 812901, 812902

**Size:** 25 ug, 100 ug

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

**Regulatory Status:** RUO

#### Product Details

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**Application:** ELISA, BLI

**Format:** Liquid, Purified

**Expression Host:** CHO

**Species:** Human

**Sources:** Recombinant Human CD25 (Glu22-Cys213) with C-terminus Fc-tag is expressed in CHO cell.

**Accession Number:** P01589

**Molecular Weight:** The protein has a predicted molecular weight of 48.0 kDa. Under DTT-reducing conditions, it migrates at approximately 65 kDa on SDS-PAGE.

**Affinity Tag:** C-Fc

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

**Formulation:** 1xPBS buffer, pH7.4, 0.22  $\mu$ m filtered

**Endotoxin level:** Not tested

**Protein Concentration:** 25 $\mu$ g size is bottled at 0.2mg/mL concentration. 100  $\mu$ g 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  $\mu$ m-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at  $\leq$  -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.

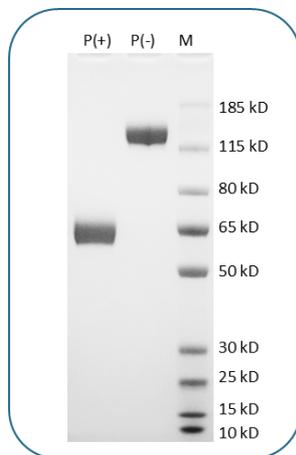
#### Background Information

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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-2R $\alpha$ ) 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-2R $\alpha$  in circulation reflects tumor activity and is associated with immune modulation in cancer progression.

**Product Data**

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Human CD25 (C-Fc) on SDS-PAGE under reducing condition (P+) and non-reducing condition (P-). The gel was stained for 1 hour with BlinkBlue (catalog 700102). The purity of this protein appears to be greater than 95%.