

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

<b>Catalog Number:</b>	813003, 813004
<b>Size:</b>	25 ug, 100 ug
<b>Target Name:</b>	IL2RA, CD25, p55
<b>Regulatory Status:</b>	RUO

### PRODUCT DETAILS

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<b>Application:</b>	Flow Cytometry
<b>Format:</b>	Liquid, APC
<b>Expression Host:</b>	CHO
<b>Species:</b>	Human
<b>Sources:</b>	Recombinant Human CD25 (Glu22-Cys213) with C-terminus Fc-tag is expressed in CHO cell and conjugated to APC.
<b>Accession Number:</b>	P01589
<b>Molecular Weight:</b>	The protein has a predicted molecular weight of 48.0 kDa. Under DTT-reducing conditions, it migrates at approximately 65 kDa on SDS-PAGE prior to conjugation.
<b>Affinity Tag:</b>	C-Fc
<b>Formulation:</b>	1xPBS buffer, pH7.4, 0.09% NaN <sub>3</sub> with a carrier protein
<b>Endotoxin level:</b>	Not tested
<b>Protein Concentration:</b>	25 $\mu$ g size is bottled at 0.1mg/mL concentration. 100 $\mu$ g size is bottled at lot specific concentration.
<b>Storage and Handling:</b>	Briefly centrifuge the vial upon receipt. An unopened vial may be stored at 2-8°C for up to six months.

### 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.