

## IL-2RB/CD122 Recombinant Protein

Catalog: NCP0240

Host: E.coli

Tag: His-tag

### BackGround:

Interleukin-2 (IL-2) is a T cell stimulatory cytokine best known for inducing T cell proliferation and NK cell proliferation and activation. IL-2 also promotes peripheral development of regulatory T cells (Tregs). Conversely, IL-2 is involved in the activation-induced cell death (AICD) that is observed post T cell expansion by increasing levels of Fas on CD4+ T cells. The effects of IL-2 are mediated through a trimeric receptor complex consisting of IL-2R $\alpha$ , IL-2R $\beta$ , and the common gamma chain,  $\gamma$ c. IL-2R $\alpha$  binds exclusively to IL-2 with low affinity and increases the binding affinity of the whole receptor complex including IL-2R $\beta$  and  $\gamma$ c subunits. IL-15 also binds to IL-2R $\beta$ .  $\gamma$ c is used by other cytokines including IL-4, IL-7, IL-9, IL-15, and IL-21. Binding of IL-2 initiates signaling cascades involving Jak1, Jak3, Stat5, and the PI3K/Akt pathways. IL-2R $\beta$ , also known as CD122, is a type I transmembrane protein that is expressed by natural killer cells and certain subsets of T cells in the periphery. IL-2R $\beta$  surface expression is up-regulated following antigen-induced activation. A heteromeric complex composed of IL-2R $\beta$  and  $\gamma$ c forms the intermediate affinity IL-2 receptor whereas a complex comprised of all three chains forms the high affinity receptor. Signaling through IL-2R $\beta$  is mediated by Jak1, which phosphorylates numerous tyrosine residues in the cytoplasmic tail to promote the recruitment of the adaptor Shc to IL-2R $\beta$  and enhance IL-2 receptor signaling.

### Product:

PBS, 4M Urea, PH7.4

### Molecular Weight:

~26kDa

### Swiss-Prot:

P14784

### Purification&Purity:

Transferred into competent cells and the supernatant was purified by NI column affinity chromatography and the purity is > 85% (by SDS-PAGE).

### Restriction Sites:

NdeI-XhoI

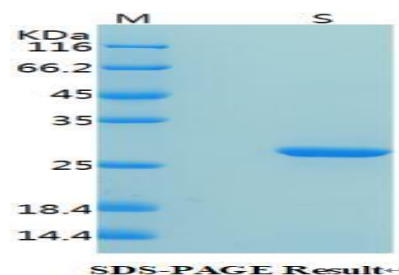
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

### Expression Vector:

pet-22b(+)

### DATA:



### Note:

For research use only, not for use in diagnostic procedure.

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