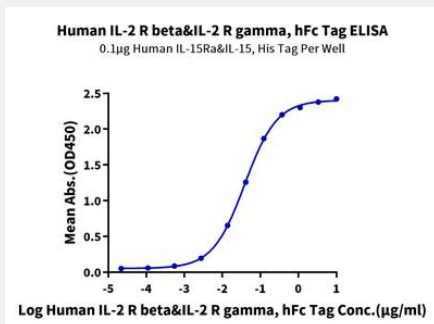


HuPro®

# IL2RB/IL2RG (Human) Recombinant Protein

Catalog # P9787      Size 100 ug

## Applications

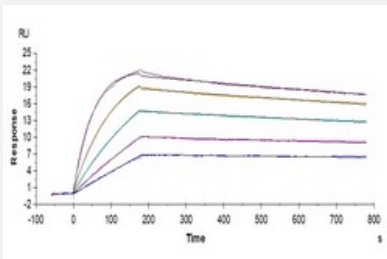


### Enzyme-linked Immunoabsorbent Assay

Immobilized Human IL-15RA & IL-15, His Tag at 1 ug/mL (100 uL/well) on the plate. Dose response curve for Human IL-2 R beta & IL-2 R gamma, hFc Tag with the EC50 of 38.8 ng/mL determined by ELISA (QC Test).

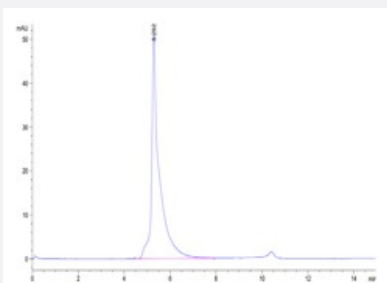
### Surface Plasmon Resonance

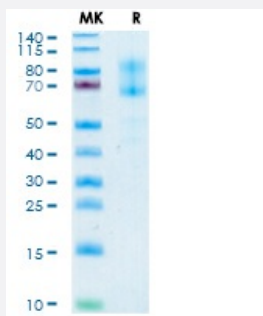
Human IL-2 R beta & IL-2 R gamma, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-2, No Tag with an affinity constant of 0.114 nM as determined in SPR assay (Biacore T200).



### SEC-HPLC

The purity of Human IL-2 R beta&IL-2 R gamma is greater than 95% as determined by SEC-HPLC.





## Tris-Bis PAGE

Human IL-2 R beta&IL-2 R gamma on Tris-Bis PAGE under reduced condition.  
The purity is greater than 95%.

## Specification

|                                |                                                                                                                                                                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Description</b>     | Human IL2RB   IL2RG (P14784   P31785-1, Ala27-Thr240   Leu23-Ala262) partial recombinant protein with hFc tag at C-Terminus expressed in HEK293 cells.                                                                                                             |
| <b>Sequence</b>                | Ala27-Thr240   Leu23-Ala262                                                                                                                                                                                                                                        |
| <b>Host</b>                    | Human                                                                                                                                                                                                                                                              |
| <b>Theoretical MW (kDa)</b>    | 51.3                                                                                                                                                                                                                                                               |
| <b>Form</b>                    | Lyophilized                                                                                                                                                                                                                                                        |
| <b>Preparation Method</b>      | Mammalian cell (HEK293) expression system                                                                                                                                                                                                                          |
| <b>Quality Control Testing</b> | SEC-HPLC and Tris-Bis PAGE<br>SEC-HPLC<br>The purity of Human IL-2 R beta&IL-2 R gamma is greater than 95% as determined by SEC-HPLC.<br>Tris-Bis PAGE<br>Human IL-2 R beta&IL-2 R gamma on Tris-Bis PAGE under reduced condition. The purity is greater than 95%. |
| <b>Recommend Usage</b>         | Biological Activity<br>ELISA<br>SPR<br>SDS-PAGE<br>The optimal working dilution should be determined by the end user.                                                                                                                                              |
| <b>Storage Buffer</b>          | Lyophilized from sterile distilled Water is > 100 ug/mL                                                                                                                                                                                                            |
| <b>Storage Instruction</b>     | Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C.<br>Aliquot to avoid repeated freezing and thawing.                                                                                                                     |
| <b>Note</b>                    | Result of bioactivity analysis                                                                                                                                                                                                                                     |

## Applications

- Enzyme-linked Immunoabsorbent Assay

Immobilized Human IL-15RA & IL-15, His Tag at 1 ug/mL (100 uL/well) on the plate. Dose response curve for Human IL-2 R beta & IL-2 R gamma, hFc Tag with the EC50 of 38.8 ng/mL determined by ELISA (QC Test).

- Functional Study

- SDS-PAGE

- Surface Plasmon Resonance

Human IL-2 R beta & IL-2 R gamma, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-2, No Tag with an affinity constant of 0.114 nM as determined in SPR assay (Biacore T200).

## Gene Info — IL2RB

**Entrez GeneID** [3560](#)

**Protein Accession#** [P14784\(IL-2 R beta\)](#) | [P31785-1\(IL-2 R gamma\)](#)

**Gene Name** IL2RB

**Gene Alias** CD122, P70-75

**Gene Description** interleukin 2 receptor, beta

**Omim ID** [146710](#)

**Gene Ontology** [Hyperlink](#)

**Gene Summary** The interleukin 2 receptor, which is involved in T cell-mediated immune responses, is present in 3 forms with respect to ability to bind interleukin 2. The low affinity form is a monomer of the alpha subunit and is not involved in signal transduction. The intermediate affinity form consists of an alpha/beta subunit heterodimer, while the high affinity form consists of an alpha/beta/gamma subunit heterotrimer. Both the intermediate and high affinity forms of the receptor are involved in receptor-mediated endocytosis and transduction of mitogenic signals from interleukin 2. The protein encoded by this gene represents the beta subunit and is a type I membrane protein. [provided by RefSeq]

**Other Designations** CD122 antigen|OTTHUMP00000028799|high affinity IL-2 receptor beta subunit|interleukin 2 receptor beta

## Gene Info — IL2RG

**Entrez GeneID** [3561](#)

**Protein Accession#** [P14784\(IL-2 R beta\)](#) | [P31785-1\(IL-2 R gamma\)](#)

|                    |                                                                                                                                                                                                                                                                                                                            |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Name          | IL2RG                                                                                                                                                                                                                                                                                                                      |
| Gene Alias         | CD132, IMD4, SCIDX, SCIDX1                                                                                                                                                                                                                                                                                                 |
| Gene Description   | interleukin 2 receptor, gamma (severe combined immunodeficiency)                                                                                                                                                                                                                                                           |
| Omim ID            | <a href="#">300400</a> <a href="#">308380</a> <a href="#">312863</a>                                                                                                                                                                                                                                                       |
| Gene Ontology      | <a href="#">Hyperlink</a>                                                                                                                                                                                                                                                                                                  |
| Gene Summary       | The interleukin 2 (IL2) receptor gamma chain (IL2RG), an important signalling component of many interleukin receptors (IL2,IL4,IL7,IL9, and IL15), is thus referred to as the common gamma chain. Mutations in this X-chromosome-linked gene cause X-linked severe combined immunodeficiency (XSCID). [provided by RefSeq] |
| Other Designations | common cytokine receptor gamma chain interleukin 2 receptor gamma chain interleukin 2 receptor, gamma                                                                                                                                                                                                                      |

## Pathway

- [Cytokine-cytokine receptor interaction](#)
- [Cytokine-cytokine receptor interaction](#)
- [Endocytosis](#)
- [Endocytosis](#)
- [Jak-STAT signaling pathway](#)
- [Jak-STAT signaling pathway](#)
- [Primary immunodeficiency](#)

## Disease

- [Arthritis](#)
- [Asthma](#)
- [Asthma](#)
- [Bipolar Disorder](#)
- [Bronchial Hyperreactivity](#)
- [Bronchiolitis](#)

- [Bronchiolitis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Celiac Disease](#)
- [Chagas Disease](#)
- [Colitis](#)
- [Connective Tissue Diseases](#)
- [Crohn Disease](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Edema](#)
- [Endometriosis](#)
- [Esophagitis](#)
- [Fetal Diseases](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Hepatitis C](#)
- [Hyperparathyroidism](#)
- [Hypersensitivity](#)
- [Immunologic Deficiency Syndromes](#)
- [Infant](#)
- [Infant](#)
- [Infection](#)
- [Inflammation](#)
- [Kidney Failure](#)
- [Leishmaniasis](#)

- [Liver Neoplasms](#)
- [Lung Neoplasms](#)
- [Lymphopenia](#)
- [Measles](#)
- [Multiple Sclerosis](#)
- [Mumps](#)
- [Musculoskeletal Diseases](#)
- [Myasthenia Gravis](#)
- [Occupational Diseases](#)
- [Pain](#)
- [Pregnancy Complications](#)
- [Premature Birth](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Radiation Injuries](#)
- [Radiation Pneumonitis](#)
- [Respiratory Syncytial Virus Infections](#)
- [Respiratory Syncytial Virus Infections](#)
- [Rubella](#)
- [Schizophrenia](#)
- [Severe combined immunodeficiency](#)
- [Skin Diseases](#)
- [Tobacco Use Disorder](#)
- [Viremia](#)
- [Wegener Granulomatosis](#)