

Catalog Number: Eg0260

Basic Information**Species:**
Rat**Purity:**
>95 %, SDS-PAGE**Tag:**
His Tag**EC50:**
5-19 ng/mL**Technical Specifications****Purity:**
>95 %, SDS-PAGE**Endotoxin Level:**
<0.1 EU/ μ g protein, LAL method**Source:**
HEK293-derived Rat IL-2 protein Met+Ala21-Gln155 (Accession# P17108) with a His tag at the C-terminus.**GeneID:**
116562**Accession:**
P17108**Predicted Molecular Mass:**
19.4 kDa**SDS-PAGE:**
19-26 kDa, reducing (R) conditions**Formulation:**
Lyophilized from 0.22 μ m filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.**Biological Activity**Immobilized Rat IL-2 (His tag) at 2 μ g/mL (100 μ L/well) can bind Rat IL-2RA (rFc tag) with a linear range of 5-19 ng/mL.**Storage and Shipping****Storage:**

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

IL-2 (Interleukin-2) is an interleukin, a type of cytokine signaling molecule in the immune system. It regulates white blood cells (leukocytes, often lymphocytes) that are responsible for immunity. The major sources of IL-2 are activated CD4+ T cells and activated CD8+ T cells. IL-2 mediates its effects by binding to IL-2 receptors which are expressed by lymphocytes. IL-2 signal can be transduced by 3 different signaling pathways: JAK/STAT, PI3K/Akt/mTOR and MAPK/ERK pathway. IL-2 plays a role in regulating the adaptive immune system by controlling the survival and proliferation of regulatory T-cells, which are required for the maintenance of immune tolerance. It also promotes proliferation of activated B cells and subsequently immunoglobulin production.

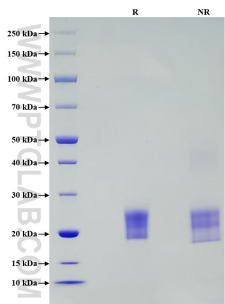
References

- 1.M C Mingari. et al. (1984). Nature. 312(5995): 641-3.
- 2.Thomas R Malek. et al. (2010). Immunity. 33(2): 153-65.
- 3.Wei Liao. et al. (2011). Curr Opin Immunol. 23(5): 598-604.
- 4.Natalia Arenas Ramirez. et al. (2015). Trends Immunol. 36(12): 763-777.

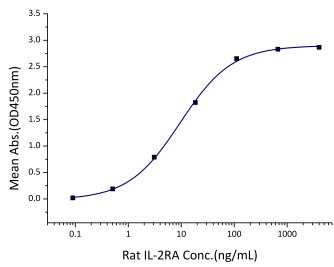
Synonyms

IL2, IL-2, interleukin 2

Selected Validation Data



Purity of Recombinant Rat IL-2 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



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