

# Mouse IL-2 Protein, His Tag

Catalog # IL2-M52H3



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## Synonym

IL2, TCGF, lymphokine, Interleukin 2

## Source

Mouse IL-2, His Tag (IL2-M52H3) is expressed from human 293 cells (HEK293). It contains AA Ala 21 - Gln 169 (Accession # [P04351-1](#)).

Predicted N-terminus: His

## Molecular Characterization

Poly-his IL-2(Ala 21 - Gln 169)  
P04351-1

This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 19.1 kDa. The protein migrates as 22-25 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per µg by the LAL method.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

## Storage

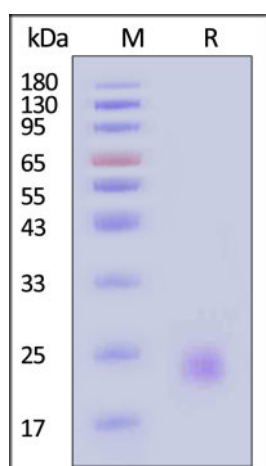
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



Mouse IL-2, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA

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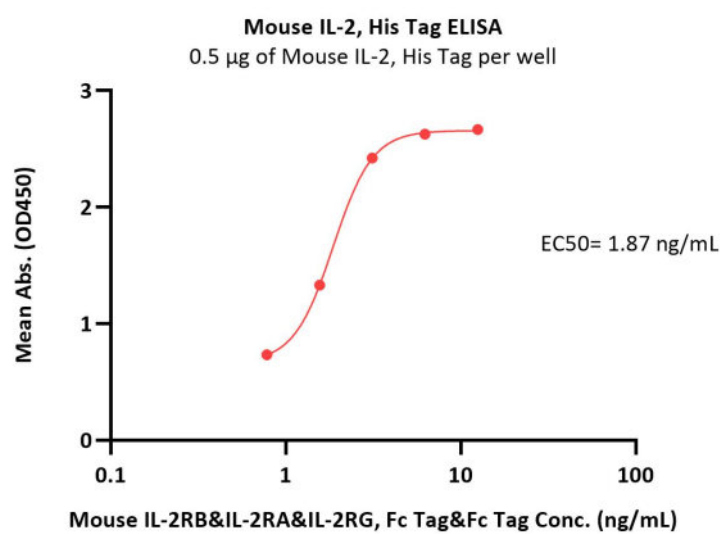
5/8/2024

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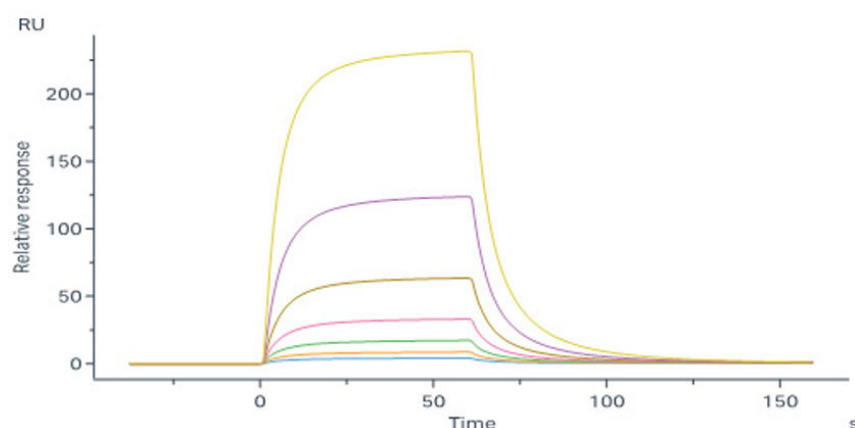


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Immobilized Mouse IL-2, His Tag (Cat. No. IL2-M52H3) at 5 µg/mL (100 µL/well) can bind Mouse IL-2RB&IL-2RA&IL-2RG, Fc Tag&Fc Tag (Cat. No. ILG-M5253) with a linear range of 0.8-3 ng/mL (QC tested).

### Bioactivity-SPR



Mouse IL-2, His Tag (Cat. No. IL2-M52H3) immobilized on CM5 Chip can bind Mouse IL-2 R beta, Fc Tag (Cat. No. ILB-M5253) with an affinity constant of 36.2 µM as determined in a SPR assay (Biacore 8K) (Routinely tested).

### Background

Interleukin-2 (IL-2) is an interleukin, a type of cytokine immune system signaling molecule, which is a leukocytotropic hormone that is instrumental in the body's natural response to microbial infection and in discriminating between foreign (non-self) and self. IL-2 mediates its effects by binding to IL-2 receptors, which are expressed by lymphocytes, the cells that are responsible for immunity. Mature human IL-2 shares 56% and 66% aa sequence identity with mouse and rat IL-2, respectively. Human and mouse IL-2 exhibit crossspecies activity. The receptor for IL-2 consists of three subunits that are present on the cell surface in varying preformed complexes. IL-2 is also necessary during T cell development in the thymus for the maturation of a unique subset of T cells that are termed regulatory T cells (T-regs). After exiting from the thymus, T-Regs function to prevent other T cells from recognizing and reacting against "self antigens", which could result in "autoimmunity". T-Regs do so by preventing the responding cells from producing IL-2. Thus, IL-2 is required to discriminate between self and non-self, another one of the unique characteristics of the immune system.

### Clinical and Translational Updates

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