

For Research Use Only

Recombinant Mouse IL-5 protein (His Tag)



Catalog Number: Eg0223

Basic Information

Species:
Mouse

Purity:
>95 %, SDS-PAGE

Tag:
His Tag

EC50:
3-13 ng/mL

Technical Specifications

Purity:
>95 %, SDS-PAGE

Endotoxin Level:
<0.1 EU/μg protein, LAL method

Source:
HEK293-derived Mouse IL-5 protein Met21-Gly133 (Accession# P04401) with His tag at the C-terminus.

GeneID:
16191

Accession:
P04401

Predicted Molecular Mass:
13.9 kDa

SDS-PAGE:
20-40 kDa, reducing (R) conditions

Formulation:
Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

1. Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is typically 3-13 ng/mL.
2. Immobilized Mouse IL-5 (His tag) at 1 μg/mL (100 μL/well) can bind Mouse IL-5 R alpha (hFc tag) with a linear range of 10-40 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

Interleukin-5 (IL-5), was originally discovered as a soluble T cell-derived factor, called T cell-replacing factor (TRF), that induced T cell-depleted activated B cells to secrete immunoglobulin. IL-5 is a key hematopoietic cytokine in eosinophil differentiation, maturation, recruitment and activation at sites of allergic inflammation. IL-5 also plays a role in the development, metabolism, and function of basophils. IL-5 exerts its biological activity through the IL-5 receptor (IL-5R), which is composed of at least two chains: an alpha chain that binds IL-5 with low affinity and a beta chain that does not bind IL-5, but together with the IL-5 alpha chain, constitutes the high affinity IL-5 receptor. The beta chain is common to the IL-3, IL-5 and GM-CSF receptors and has been shown to signal through the JAK/Stat pathway. IL-5 has long been associated with the cause of several allergic diseases including allergic rhinitis and asthma, wherein a large increase in the number of circulating, airway tissue, and induced sputum eosinophils have been observed.

References

1. K Takatsu. et al. (1988). Immunol Rev. 102:107-35.
2. Kiyoshi Takatsu. et al. (2011). Proc Jpn Acad Ser B Phys Biol Sci. 87(8):463-85.
3. Taku Kouro. et al. (2009). Int Immunol. 21(12):1303-9.
4. Corrado Pelaia. et al. (2019). Front Physiol. 10:1514.

Synonyms

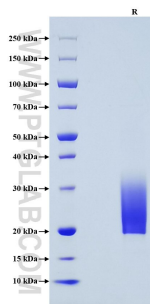
IL5, IL-5, IL 5, interleukin 5, interleukin-5

For technical support and original validation data for this product please contact

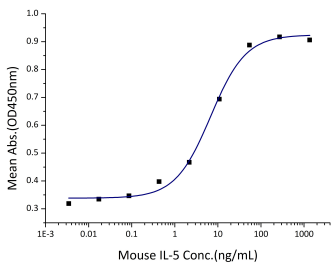
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W: ptglab.com

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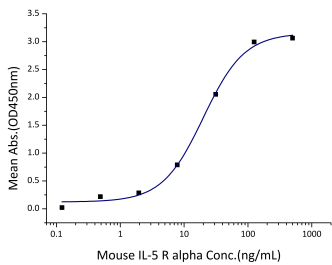
Selected Validation Data



Purity of Recombinant Mouse IL-5 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.



Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is typically 3-13 ng/mL.



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