

For Research Use Only

Recombinant Rat IL-1 alpha protein (rFc Tag) (HPLC verified)



Catalog Number: Eg4641

Basic Information

Species:
Rat

Purity:
>90 %, SDS-PAGE
>90 %, SEC-HPLC

Tag:
rFc Tag

Technical Specifications

Purity:
>90 %, SDS-PAGE
>90 %, SEC-HPLC

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

Source:
HEK293-derived Rat IL-1 alpha protein Ser115-Ser270 (Accession# P16598) with a rabbit IgG Fc tag at the N-terminus.

GeneID:
24493

Accession:
P16598

Predicted Molecular Mass:
45.0 kDa

SDS-PAGE:
42-55 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

Not tested

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-1α (IL-1 alpha) is a protein that plays a crucial role in the regulation of a number of key cellular processes. IL-1 alpha is a cytokine and a potent mediator of body's response to inflammation, microbial invasion, tissue injury and immunological response. In addition, recent studies suggest that IL-1 alpha also has a role in wound healing, rheumatoid arthritis, Alzheimer's disease and tumor growth. IL-1 alpha functions as an alarmin during the process of sterile inflammation. It serves as a signal from dying cells to potentiate the inflammatory response, increasing the expression of other secreted factors like IL-6 and IL-8. IL-1 alpha was found to affect the cell cycle of osteosarcoma cell to reduce cell growth.

References

1. Dinarello CA. et al. (2009). Annu Rev Immunol. 27:519-50.
2. Dinarello CA. et al. (1998). Int Rev Immunol. 16:457-99.
3. Infante J. et al. (2007). Dement Geriatr Cogn Disord. 23:215-8.
4. Apte RN. et al. (2008). Immunol Rev. 222:222-41.
5. Palmer G. et al. (2005). Cytokine. 31(2):153-60.
6. Rider P. et al. (2013). Semin Immunol. 25(6):430-8.
7. Orjalo AV. et al. (2009). Proc Natl Acad Sci U S A. 106(40):17031-6.

Synonyms

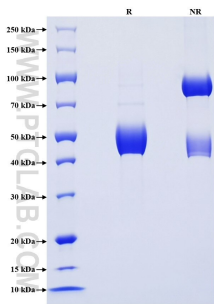
IL-1, IL1

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

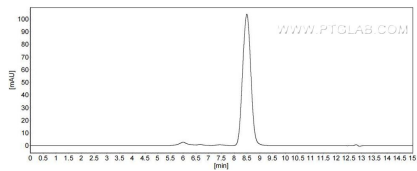
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Selected Validation Data



Purity of Recombinant Rat IL-1 alpha 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.



The purity of Rat IL-1 alpha was greater than 90% as determined by SEC-HPLC.