

Recombinant Human IL-12 protein (His Tag)

Catalog Number: Eg0575

Basic Information

Species:
Human

Purity:
>95 %, SDS-PAGE

Tag:
His Tag

EC50:
0.04-0.16 ng/mL

Technical Specifications

Purity:
>95 %, SDS-PAGE

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

Source:
HEK293-derived Human IL-12 protein Ile23-Ser328 (Human IL-12B Accession# P29460)+linker+Arg23-Ser219 (Human IL-12A Accession# P29459) with His tag at the C-terminus.

GeneID:
3593(IL-12B) & 3592(IL-12A)

Accession:
P29460(IL-12B) & P29459(IL-12A)

Predicted Molecular Mass:
59.5 kDa

SDS-PAGE:
65-80 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

Measured by its ability to induce IFN-gamma secretion in human natural killer lymphoma NK-92 cells. The ED50 for this effect is 0.04-0.16 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-12 (IL-12), is a cytokine that is secreted by activated phagocytes and dendritic cells and that induces interferon-γ production by natural-killer and T lymphocytes. IL-12 (referred to as 'p70') is a 70 kDa heterodimer composed of a 35 kDa subunit (IL-12A p35) and a 40 kDa subunit (IL-12B p40). IL-12 is known as a T cell-stimulating factor, which can stimulate the growth and function of T cells. IL-12 plays an important role in the activities of natural killer cells and T lymphocytes. IL-12 also has anti-angiogenic activity, which means it can block the formation of new blood vessels. IL-12 has been shown to play a critical role in the pathogenesis of a variety of immune-related diseases.

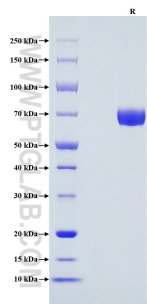
References

1. Picard C. et al. (2002). Am J Hum Genet. 70: 336-48.
2. Randolph AG. et al. (2004). Am J Hum Genet. 75: 709-15.
3. Hsieh CS. et al. (1993). Science. 260: 547-9.
4. Stern AS. et al. (1996). Life Sci. 58: 639-54.
5. Colombo MP. et al. (2002). Cytokine Growth Factor Rev. 13: 155-68.

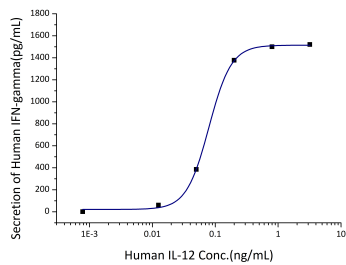
Synonyms

IL12(IL12B+IL12A), IL-12, IL-12 p40/IL-12 p35, IL-12 p70, IL-12B/IL-12A

Selected Validation Data



Purity of Recombinant Human IL-12 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) conditions and stained using Coomassie blue.



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