



Synonym

IL12,p70,Interleukin-12

Source

Biotinylated Human IL-12B&IL-12A Heterodimer, His,Avitag&Flag Tag(IL2-H8210) is expressed from human 293 cells (HEK293). It contains AA Ile 23 - Ser 328 (IL-12B) & Arg 23 - Ser 219 (IL-12A) (Accession # [P29460-1](#) (IL12B) & [P29459-1](#) (IL12A)).

Predicted N-terminus: Ile 23 (IL12B) & Arg 23 (IL12A)

Molecular Characterization

IL-12B (Ile 23 - Ser 328) P29460-1	Poly-his	Avi
IL-12A (Arg 23 - Ser 219) P29459-1	Flag	

Biotinylated Human IL-12B&IL-12A Heterodimer Protein, His,Avitag&Flag Tag is produced by co-expression of IL-12B and IL-12A, has a calculated MW of 38.3 kDa (IL-12B) and 23.8 kDa (IL-12A). Subunit IL-12B is fused with a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™) and subunit IL-12A is fused with flag tag at the C-terminus. The reducing (R) heterodimer protein migrates as 40-50 kDa (IL12B) and 32-35 kDa (IL12A) respectively due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

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

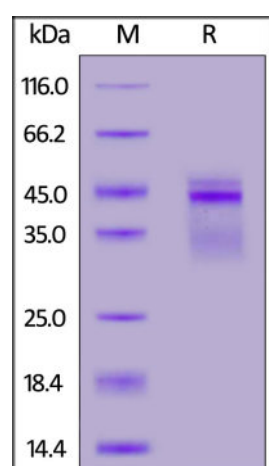
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



Biotinylated Human IL-12B&IL-12A Heterodimer, His,Avitag&Flag Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie

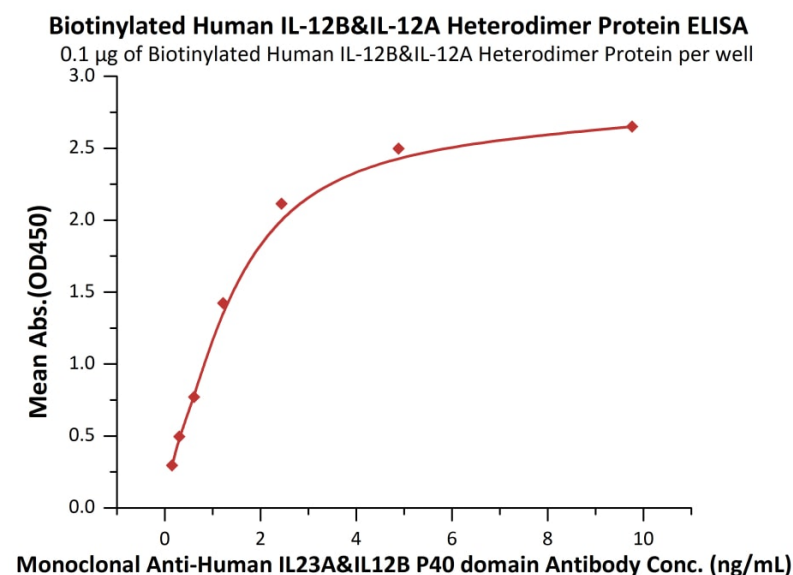
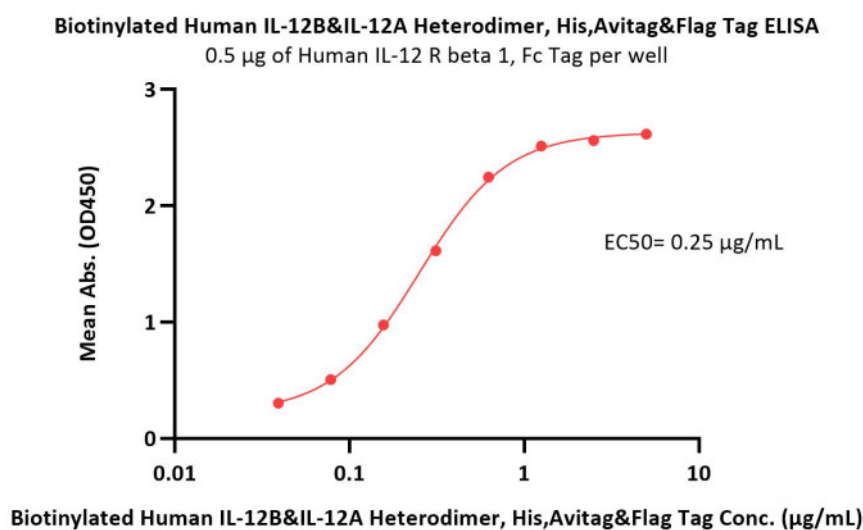
Discounts, Gifts,
and more!





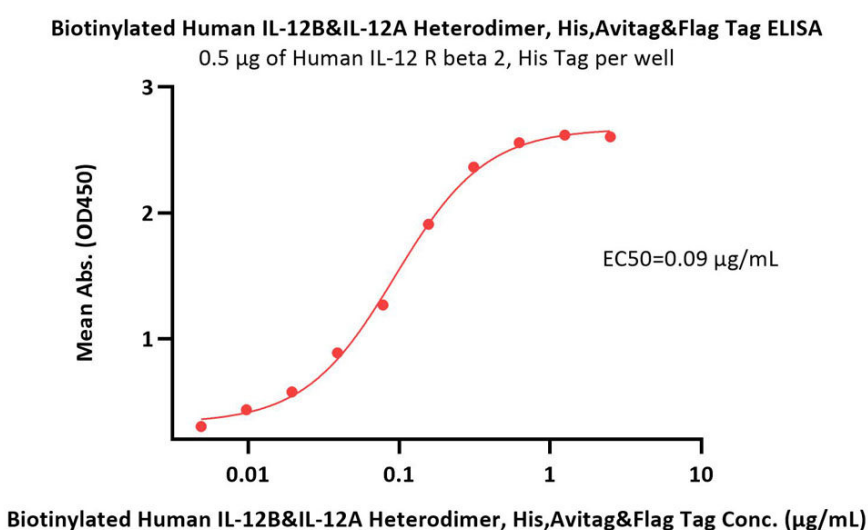
Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Human IL-12 R beta 1, Fc Tag (Cat. No. ILB-H5255) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-12B&IL-12A Heterodimer, His,Avitag&Flag Tag (Cat. No. IL2-H8210) with a linear range of 0.039-1.25 µg/mL (QC tested).

Immobilized Biotinylated Human IL-12B&IL-12A Heterodimer Protein, His,Avitag&Flag Tag (Cat. No. IL2-H8210) at 1 µg/mL (100 µL/well) on streptavidin precoated (0.5 µg/well) plate. can bind Monoclonal Anti-Human IL23A&IL12B P40 domain Antibody, Human IgG1 with a linear range of 0.2-1 ng/mL (Routinely tested).



Immobilized Human IL-12 R beta 2, His Tag (Cat. No. ILB-H52H6) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-12B&IL-12A Heterodimer, His,Avitag&Flag Tag (Cat. No. IL2-H8210) with a linear range of 0.003-0.3 µg/mL (Routinely tested).

Background

Interleukin 12 (IL12) is also known as p70, and is an interleukin that is naturally produced by dendritic cells, macrophages and human B-lymphoblastoid cells (NC-37) in response to antigenic stimulation. IL12 is a heterodimeric cytokine, containing IL-12A (p35) and IL-12B (p40). IL-12 is involved in the differentiation of naive T cells into Th1 cells. It is known as a T cell-stimulating factor, which can stimulate the growth and function of T cells. It stimulates the production of IFN-γ and TNF-α from T cells and NK cells, and reduces IL-4 mediated suppression of IFN-γ. 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.

Clinical and Translational Updates

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