

Recombinant Human IL-23(IL23A&IL12B Heterodimer) Protein (His Tag)

Catalog Number: PKSH030445

Note: Centrifuge before opening to ensure complete recovery of vial contents.

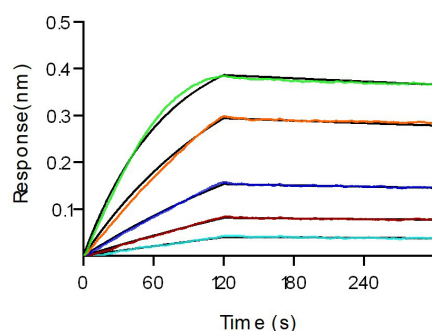
Description

Species	Human
Source	HEK293 Cells-derived Human IL-23(IL23A&IL12B protein Met 1-Pro189&Met 1-Ser 28, with an C-terminal His
Calculated MW	20.1&36.2 kDa
Observed MW	22&45 kDa
Accession	Q9NPF7&NP_002178.2
Bio-activity	1. Measured by its ability to bind biotinylated recombinant human IL12RB1 in a functional ELISA. 2. Immobilized human IL23A-His+IL12B-His at 10 µg/ml (100 µl/well) can bind human IL23R-Fc. The EC ₅₀ of human IL23R-Fc is 0.28-0.66 µg/ml. 3. Immobilized human IL23A-His+IL12B-His at 10 µg/ml (100 µl/well) can bind Cynomolgus IL23R-Fc. The EC ₅₀ of Cynomolgus IL23R-Fc is 0.14-0.35 µg/ml. 4. Measured by its ability to induce IL17 secretion by mouse splenocytes. The ED ₅₀ for this effect is 4-20 ng/mL.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



Loaded Anti-IL-12 & IL-23 Antibody (P40) (Ustekinumab) on proA Biosensor, can bind Recombinant Human IL-23 Protein, His Tag (Cat: PKSH030445) with an affinity constant of 0.532 nM as determined in BLI assay (Sartorius Octet RED384).

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Background

Interleukin 23 (IL-23) is a heterodimeric cytokine composed of two disulfide-linked subunits, a p19 subunit that is unique to IL-23, and a p40 subunit that is shared with IL-12. The p19 subunit has homology to the p35 subunit of IL-12, as well as to other single chain cytokines such as IL-6 and IL-11. The p40 subunit is homologous to the extracellular domains of the hematopoietic cytokine receptors. Although p19 is expressed by activated macrophages, dendritic cells, T cells, and endothelial cells, only activated macrophages and dendritic cells express p40 concurrently to produce IL-23. IL-23 has biological activities that are similar to, but distinct from IL-12. Both IL-12 and IL-23 induce proliferation and IFN-gamma production by human T cells. While IL-12 acts on both naive and memory human T cells, the effects of IL-23 is restricted to memory T cells.

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