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

Catalog Number: PKSH030445

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

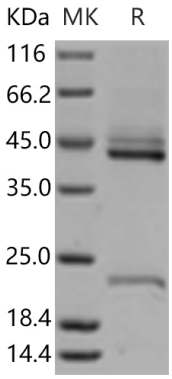
Description

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 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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



> 90 % as determined by reducing SDS-PAGE.

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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