

Human IL-23A&IL-12B Heterodimer Protein; His Tag

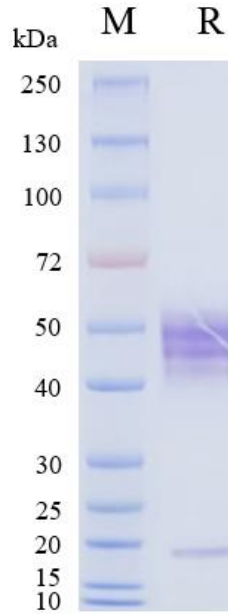
Product Information

| | |
|------------------------|---|
| Product Name | Human IL-23A&IL-12B Heterodimer Protein; His Tag |
| Storage temp. | Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles. |
| Catalog# / Size | GM-87924RP-100 / 100 μg GM-87924RP-1000 / 1 mg |

Protein Information

| | |
|---------------------------|--|
| Alternative Names | IL-23 alpha & IL-12 beta Heterodimer |
| Source | Human IL-23A&IL-12B Heterodimer Protein; His Tag (GM-87924RP) is expressed from human 293 cells (HEK-293). It contains AA(IL-23A) Arg 20 - Pro 189 (Accession # Q9NPF7-1) and AA(IL-12B) Ile 23 - Ser 328 (Accession # P29460-1). This protein carries a His tag at the C-terminus of IL-12B. |
| Purity | > 95% as determined by SDS-PAGE |
| Endotoxin | < 1 EU/ μg , determined by LAL gel clotting assay |
| Predicted Mol Mass | 18.7 KDa (IL-23A) and 34.4 KDa (IL-12B) |
| Formulation | Supplied as a 0.2 μm filtered solution of PBS, pH7.4. |
| Description | IL-23 is a heterodimeric cytokine made of IL-23 alpha (p19) and IL-12 beta (p40) subunits. While p40 is shared with IL-12, p19 is unique to IL-23. It binds to its receptor complex (IL-23R and IL-12R β 1) to regulate Th17 cells, promoting the release of pro-inflammatory cytokines like IL-17 and IL-22, driving immune inflammation. IL-23 plays a significant role in many inflammatory and autoimmune diseases, such as psoriasis, Crohn's disease, ulcerative colitis, and rheumatoid arthritis. Due to its regulation of Th17 cells and inflammatory responses, IL-23 has become an important therapeutic target. Drugs that specifically block p19 (e.g., guselkumab) have been used to treat various inflammatory diseases. Additionally, p40-targeting drugs (e.g., ustekinumab) can inhibit the functions of both IL-12 and IL-23, thereby alleviating disease progression. |

SDS-PAGE

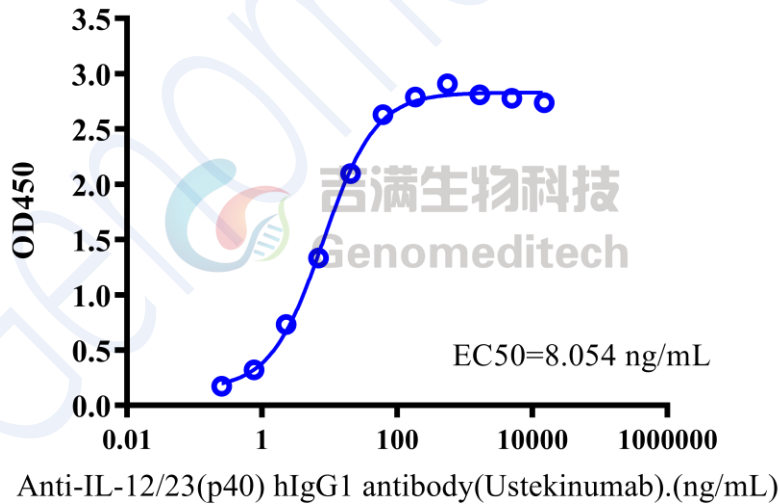


On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

Bioactivity-ELISA

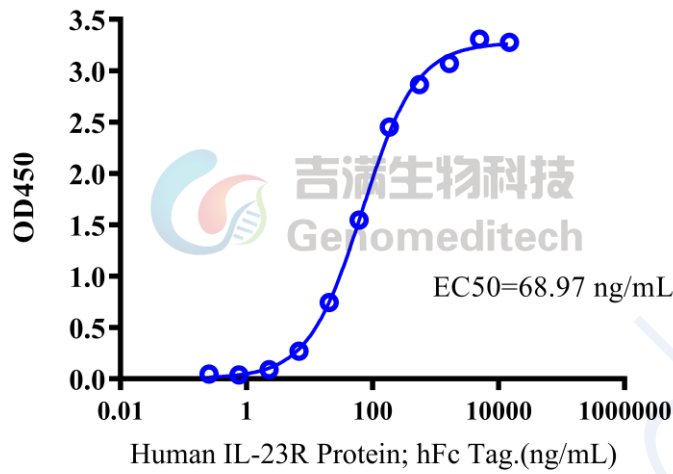
0.5 μ g Human IL-23 alpha&IL-12 beta Heterodimer Protein; His Tag of per well



Human IL-23A&IL-12B Heterodimer Protein; His Tag (Catalog # GM-87924RP) was immobilized at 5 μ g/ml (100 μ L/well). Increasing concentrations of Anti-IL-12/23(p40) hIgG1 antibody(Ustekinumab) (Catalog # GM-46333AB) were added.

Bioactivity-ELISA

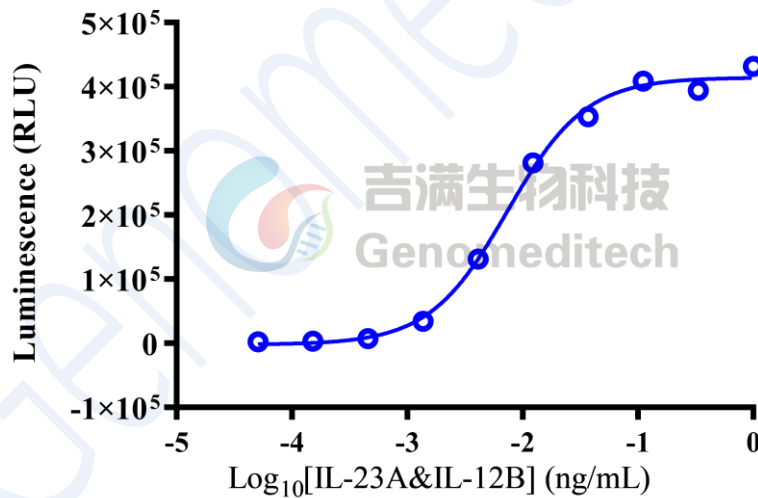
0.6 μg Anti-His mIgG2a Antibody+0.2 μg Human IL-23 alpha&IL-12 beta Heterodimer Protein; His Tag of per well



Human IL-23A&IL-12B Heterodimer Protein; His Tag (Catalog # GM-87924RP) was immobilized at 2 $\mu\text{g}/\text{ml}$ (100 $\mu\text{L}/\text{well}$) on Anti-His mIgG2a Antibody (Catalog # GM-59493AB) (0.6 $\mu\text{g}/\text{well}$) precoated. Increasing concentrations of Human IL-23R Protein; hFc Tag (Catalog # GM-87925RP) were added.

Bioactivity CELL BASE

H_IL-23 Reporter 293 Cell Line



| H_IL-23 Reporter 293 Cell Line | |
|--------------------------------|----------|
| EC50 | 0.007393 |

Human IL-23A&IL-12B Heterodimer Protein; His Tag (Catalog # GM-87924RP) was added into H_IL-23 Reporter 293 Cell Line (Catalog # GM-C06722), and then IL-23/IL-23R signals were stimulated.