

Recombinant Rat IL23A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52559

Size: 10ug, 100ug

Protein Name: Interleukin-23 subunit alpha (IL-23 subunit alpha) (IL-23-A) (Interleukin-23 subunit p19) (IL-23p19)

Synonym: IL23a

UniProt ID: Q91Z84

UniProt Link: www.uniprot.org/uniprotkb/Q91Z84/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 196 AA

Molecular Weight: 22 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLDCRAILLWLLPWATQGLAVPRSSSPDWAQCQQLSRNLCTLAWSAHTPVGQMDLLREEGEEETK
SDVPRIQCGDGDGPQGLKDNSQFCLQRIRQGLVFYKHLLDSDIFTGEPSSLPDSPVDQLHTSLLGLS
QLLPEDHHWETQQMPRLSPSQWQRSLLRSKILRSLQAFLAIAARVFAHGAATLTEPLVPTA

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Interleukin-23 subunit alpha (IL-23 subunit alpha) (IL-23-A) (Interleukin-23 subunit p19) (IL-23p19) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Associates with IL12B to form the pro-inflammatory cytokine IL-23 that plays different roles in innate and adaptive immunity. Released by antigen-presenting cells such as dendritic cells or macrophages, binds to a heterodimeric receptor complex composed of IL12RB1 and IL23R to activate JAK2 and TYK2 which then phosphorylate the receptor to form a docking site leading to the phosphorylation of STAT3 and STAT4. This process leads to activation of several pathways including p38 MAPK or NF-kappa-B and promotes the production of pro-inflammatory cytokines such as interleukin-17A/IL17A. In turn, participates in the early and effective intracellular bacterial clearance. Promotes the expansion and survival of T-helper 17 cells, a CD4-positive helper T-cell subset that produces IL-17, as well as other IL-17-producing cells.

Subcellular Localization: Secreted . Note=Secreted upon association with IL12B.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.