

Recombinant Mouse IL9 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51280

Size: 10ug, 100ug

Protein Name: Interleukin-9 (IL-9) (Cytokine P40) (T-cell growth factor P40)

Synonym: IL9

UniProt ID: P15247

UniProt Link: www.uniprot.org/uniprotkb/P15247/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 144 AA

Molecular Weight: 16 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MLVTYILASVLLFSSVLGQRCSTTWGIRDNTNYLIENLKDDPPSKCSCSGNVTSCLCCLSVPTDDCTTPC
YREGLQLLTNATQKSRLLPVFHRVKRIVEVLKNITCPSFSCEKPCNQTMAGNTLSFLKSLLGTFQKTE
MQRQKSRP

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-9 (IL-9) (Cytokine P40) (T-cell growth factor P40) 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: Multifunctional cytokine secreted mainly by T-helper 2 lymphocytes and also mast cells or NKT cells that plays important roles in the immune response against parasites (PubMed:11070175, PubMed:19433802). Affects intestinal epithelial permeability and adaptive immunity (PubMed:12704113). In addition, induces the differentiation of specific T-cell subsets such as IL-17 producing helper T-cells (TH17) and also proliferation and differentiation of mast cells (PubMed:11070175, PubMed:19433802). Mechanistically, exerts its biological effects through a receptor composed of IL9R subunit and a signal transducing subunit IL2RG (PubMed:2145361, PubMed:7718508). Receptor stimulation results in the rapid activation of JAK1 and JAK3 kinase activities leading to STAT1, STAT3 and STAT5-mediated transcriptional programs (PubMed:10464327). Induction of differentiation genes seems to be mediated by STAT1 alone, while protection of cells from apoptosis depends on STAT3 and STAT5 (PubMed:10464327).

Subcellular Localization: Secreted.

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.