

Anti-Human IL-4 (RABBIT) Antibody Biotin Conjugated
IL-4 Antibody Biotin Conjugated
Catalog # ASR4970

Specification

Anti-Human IL-4 (RABBIT) Antibody Biotin Conjugated - Product Information

| | |
|-----------------------|---|
| Host | Rabbit |
| Conjugate | Biotin |
| Target Species | Human |
| Reactivity | Human |
| Clonality | Polyclonal |
| Application | WB, IHC, E, I, LCI |
| Application Note | This purified antibody has been tested in western blotting and suitable for ELISA. By western blot a band approximately 15 kDa in size corresponding to human IL-4 protein is expected in the appropriate cell lysate or extract. Specific conditions for reactivity should be optimized by the end user. |
| Physical State | Lyophilized |
| Buffer | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| Immunogen | This purified antibody was prepared from whole rabbit serum produced by repeated immunizations with full length recombinant human IL-4 protein. |
| Reconstitution Volume | 100 µL |
| Reconstitution Buffer | Restore with deionized water (or equivalent) |
| Stabilizer | 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free |
| Preservative | 0.01% (w/v) Sodium Azide |

Anti-Human IL-4 (RABBIT) Antibody Biotin Conjugated - Additional Information

Gene ID 3565

Other Names
3565

Purity

This product is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. This purified antibody has been heated to 56°C for 30 minutes. In ELISA and other immunoreactive assays, this antibody will recognize both native and recombinant human IL-4 in cell supernatants and certain body fluids. A control of similarly diluted normal rabbit IgG is recommended.

Storage Condition

Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Human IL-4 (RABBIT) Antibody Biotin Conjugated - Protein Information

Name IL4

Function

Cytokine secreted primarily by mast cells, T-cells, eosinophils, and basophils that plays a role in regulating antibody production, hematopoiesis and inflammation, and the development of effector T-cell responses (PubMed:1993171, PubMed:3016727). Induces the expression of class II MHC molecules on resting B-cells. Enhances both secretion and cell surface expression of IgE and IgG1 (PubMed:1993171). Regulates also the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes (PubMed:2521231). Positively regulates IL31RA expression in macrophages. Stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and through the induction of RUFY4. In addition, plays a critical role in higher functions of the normal brain, such as memory and learning (By similarity). Upon binding to IL4, IL4R receptor dimerizes either with the common IL2R gamma chain/IL2RG to produce the type 1 signaling complex, located mainly on hematopoietic cells, or with the IL13RA1 to produce the type 2 complex, which is expressed also on nonhematopoietic cells (PubMed:10219247, PubMed:11526337, PubMed:18243101). Engagement of both types of receptors initiates JAK3 and to a lower extent JAK1 phosphorylation leading to activation of the signal transducer and activator of transcription 6/STAT6 (PubMed:7721895).

Cellular Location

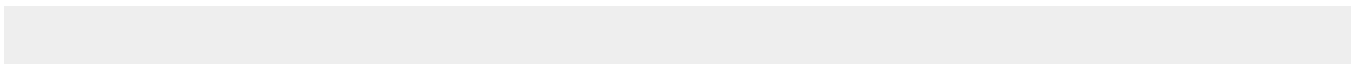
Secreted.

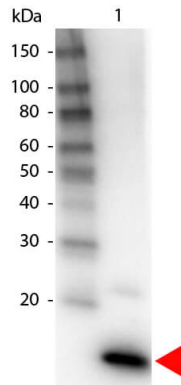
Anti-Human IL-4 (RABBIT) Antibody Biotin Conjugated - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Human IL-4 (RABBIT) Antibody Biotin Conjugated - Images





Western Blot of Biotin Conjugated Rabbit anti-IL-4 Antibody. Lane 1: Human IL-4. Lane 2: none. Load: 50 ng per lane. Primary antibody: IL-4 Antibody Biotin Conjugated at 1:1,000 for overnight at 4°C. Secondary antibody: HRP Streptavidin secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 17 kDa, 17 kDa for Human IL-4. Other band(s): none.

Anti-Human IL-4 (RABBIT) Antibody Biotin Conjugated - Background

IL-4 is a pleiotropic cytokine produced by activated T cells. This cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. This gene, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.