

## Biotin anti-mouse IL-5 Antibody

<b>Catalog# / Size</b>	504401 / 50 µg 504402 / 500 µg
<b>Clone</b>	TRFK4
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interleukin-5, Eosinophil differentiation factor (EDF), Eosinophil colony stimulating factor (Eo-CSF), B cell growth factor-2 (BCGF-2), B cell differentiation factor for IgM (BCDF-m), IgA enhancing factor (IgA-EF), T-cell replacing factor-1 (TRF-1)
<b>Isotype</b>	Rat IgG2a, κ
<b>Description</b>	IL-5 is a homodimeric, disulphide-linked protein produced by T-cells. The native protein can have variable molecular weight as a result of glycosylation. Monomeric mouse IL-5 is a 113 amino acid protein with a reported molecular weight of 35-37 kD for the homodimeric protein. Mouse and human IL-5 are approximately 70% identical. IL-5 has been shown to promote the growth of immature hematopoietic BFU-E progenitors and stimulates the activation, and differentiation of eosinophils, and promotes the generation of cytotoxic lymphocytes. Mouse IL-5 induces the differentiation and proliferation of pre-activated B-cells and stimulates the production and secretion of IgM and IgA by B-cells stimulated with bacterial endotoxin. The TRFK4 antibody reacts with mouse interleukin-5 (IL-5). The TRFK4 antibody can neutralize the bioactivity of natural or recombinant IL-5.

### Product Details

<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Partially-purified T cell clone supernatant
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ELISA Detection</a> , <a href="#">ELISPOT Detection</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">ELISA assay</a> . For use as an ELISA detection antibody, a concentration range of 0.25-1.0 µg/ml is recommended. To obtain a linear standard curve, serial dilutions of mouse IL-5 recombinant protein ranging from 250 to 1 pg/ml are recommended for each ELISA plate. For use as an ELISPOT detection antibody, a concentration range of 1-4 µg/ml is recommended. It is recommended that the reagent be titrated for optimal performance for each application.

### Application Notes

**ELISA<sup>1-4</sup> or ELISPOT<sup>5-7</sup> Detection:** The biotinylated TRFK4 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified TRFK5 antibody (Cat. No. 504302/504308) as the capture antibody.

**Additional reported applications (for the relevant formats) include:** neutralization<sup>1</sup> of mouse IL-5 bioactivity. The LEAF™ purified TRFK5 antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of mouse and human IL-5 bioactivity (Cat. No. 504308).

**Note:** For testing mouse IL-5 in serum, plasma or supernatant, BioLegend's ELISA Max™ Sets (Cat. No. 431201 to 431206) are specially developed and recommended.

### Application References

(PubMed link indicates BioLegend citation)

- Schumacher, J., *et al.* 1988. *J. Immunol.* 141:1576.
- Abrams, J., *et al.* 1992. *Immunol. Rev.* 127:5.
- Abrams, J. 1995. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.20.

- Sander, B., *et al.* 1993. *J. Immunol. Meth.* 166:201.
- Taguchi, T., *et al.* 1990. *J. Immunol. Meth.* 128:65.
- Taguchi, T., *et al.* 1990. *J. Immunol.* 145:68.
- Klinman, D., *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.19.

#### Product Citations

- Kobia FM, *et al.* 2020. *PLoS Biol.* 18:e3000850. [PubMed](#)

#### RRID

AB\_2296156 (BioLegend Cat. No. 504401)  
AB\_2127162 (BioLegend Cat. No. 504402)

## Antigen Details

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<b>Structure</b>	Cytokine; dimer; 40-50 kD (Mammalian)
<b>Bioactivity</b>	Growth/differentiation of B cells, eosinophils; proliferation/cell activation/differentiation of eosinophilic granulocytes
<b>Cell Sources</b>	Mast cells, T cells, eosinophils
<b>Cell Targets</b>	Eosinophils, B cells
<b>Receptors</b>	Heterodimer IL-5R $\alpha$ (CD125); $\beta$ -subunit (CDw131) in common with IL-3R, GM-CSFR
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"><li>Fitzgerald, K., <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook</i>. Academic Press, San Diego.</li><li>Takatsu, K., <i>et al.</i> 1988. <i>Immunol. Rev.</i> 102:107.</li><li>Takatsu, K. 1992. <i>Curr. Opin. Immunol.</i> 4:299.</li><li>Takatsu, K. 1991. <i>Microbiol. Immunol.</i> 35:593.</li></ol>
<b>Gene ID</b>	<a href="#">16191</a>

## Related Protocols

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[Active Protocols: Sandwich ELISA - Video](#)

[Sandwich ELISA Protocol](#)

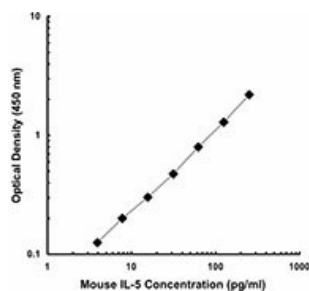
## Other Formats

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Biotin anti-mouse IL-5

## Product Data

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