

Product datasheet for **AP20595PU-M**

IL5 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunohistochemistry on Paraffin Sections: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 61-110 of Human IL-5
Specificity:	This antibody detects endogenous levels of IL-5 protein. (region surrounding Ser92)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 15, 45 kDa
Gene Name:	interleukin 5
Database Link:	<u>Entrez Gene 16191 Mouse</u> <u>Entrez Gene 24497 Rat</u> <u>Entrez Gene 3567 Human</u> <u>P05113</u>



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Background:

Interleukin 5 (IL-5) is a soluble T cell-derived factor, also known as T cellreplacing factor (TRF), that induces B cell and eosinophil growth and differentiation. IL-5 exerts its biological activity through the IL-5 receptor (IL-5R), which is composed of two chains: an alpha chain that binds IL-5 with low affinity and a beta chain that does not bind IL-5, but together with the IL-5 alpha chain, constitutes the high affinity IL-5 receptor. The cytoplasmic domain of both the alpha and beta chains is essential for signal transduction. Specifically, the membraneproximal proline-rich sequence of the cytoplasmic domain of the IL-5R receptor alpha subunit, IL-5Ralpha, is critical for the IL-5 induced proliferative response, expression of nuclear protooncogenes and tyrosine phosphorylation of cellular proteins, such as JAK1 and JAK2. Alternative splicing of the IL-5Ralpha gene produces several isoforms, including a membraneanchored isoform and a soluble isoform. The soluble isoform competes with IL-5 for binding to IL-5R and inhibits IL-5-mediated receptor activation and inflammatory mediator production, and, therefore, may be useful in treating asthma.

Synonyms:

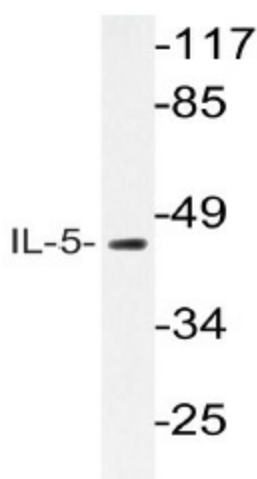
IL-5, B-cell differentiation factor I, Eosinophil differentiation factor, T-cell replacing factor, TRF

Protein Families:

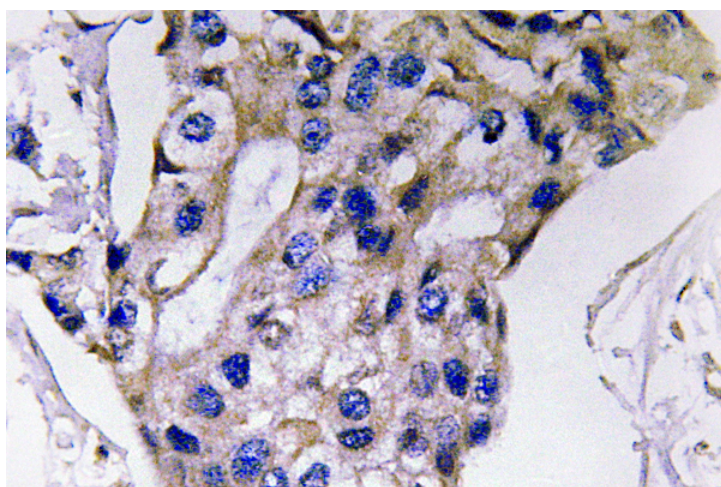
Druggable Genome, Secreted Protein

Protein Pathways:

Allograft rejection, Asthma, Autoimmune thyroid disease, Cytokine-cytokine receptor interaction, Fc epsilon RI signaling pathway, Hematopoietic cell lineage, Jak-STAT signaling pathway, T cell receptor signaling pathway

Product images:


Western blot (WB) analysis of IL-5 antibody in extracts from HT-29 cells.



Immunohistochemistry (IHC) analyzes of IL-5 antibody in paraffin-embedded human breast carcinoma tissue.