

IL3RA Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1819a**Specification****IL3RA Antibody - Product Information**

Application	E, WB, IF, FC, IHC
Primary Accession	P26951
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	43.3kDa KDa

Description

The protein encoded by this gene is an interleukin 3 specific subunit of a heterodimeric cytokine receptor. The receptor is comprised of a ligand specific alpha subunit and a signal transducing beta subunit shared by the receptors for interleukin 3 (IL3), colony stimulating factor 2 (CSF2/GM-CSF), and interleukin 5 (IL5). The binding of this protein to IL3 depends on the beta subunit. The beta subunit is activated by the ligand binding, and is required for the biological activities of IL3. This gene and the gene encoding the colony stimulating factor 2 receptor alpha chain (CSF2RA) form a cytokine receptor gene cluster in a X-Y pseudoautosomal region on chromosomes X or Y. Alternatively spliced transcript variants encoding distinct isoforms have been found.

Immunogen

Purified recombinant fragment of human IL3RA (AA: 200-305) expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

IL3RA Antibody - Additional Information

Gene ID 3563

Other Names

Interleukin-3 receptor subunit alpha, IL-3 receptor subunit alpha, IL-3R subunit alpha, IL-3R-alpha, IL-3RA, CD123, IL3RA, IL3R

Dilution

E~~1/10000
WB~~1/500 - 1/2000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

IL3RA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

IL3RA Antibody - Protein Information

Name IL3RA ([HGNC:6012](#))

Synonyms IL3R

Function

Cell surface receptor for IL3 expressed on hematopoietic progenitor cells, monocytes and B-lymphocytes that controls the production and differentiation of hematopoietic progenitor cells into lineage-restricted cells (PubMed: <http://www.uniprot.org/citations/10527461> target="_blank">10527461). Ligand stimulation rapidly induces heterodimerization with IL3RB, phosphorylation and enzyme activity of effector proteins such as JAK2 and PI3K that play a role in signaling cell proliferation and differentiation. Activation of JAK2 leads to STAT5-mediated transcriptional program (By similarity).

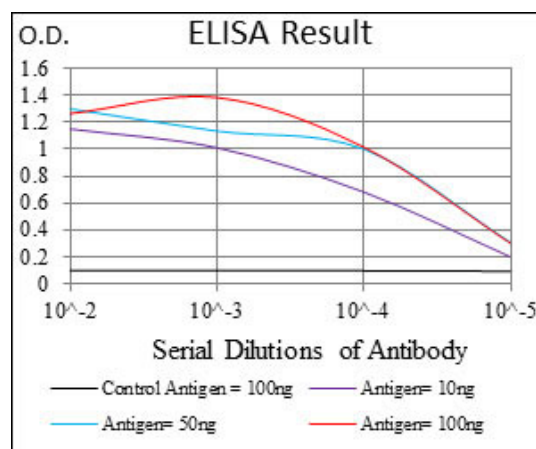
Cellular Location

Membrane; Single-pass type I membrane protein.

IL3RA Antibody - 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](#)



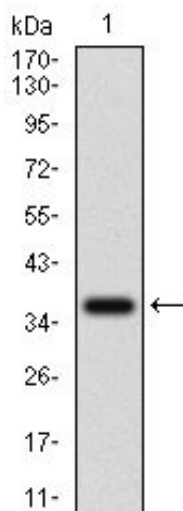


Figure 1: Western blot analysis using IL3RA mAb against human IL3RA recombinant protein. (Expected MW is 38.3 kDa)

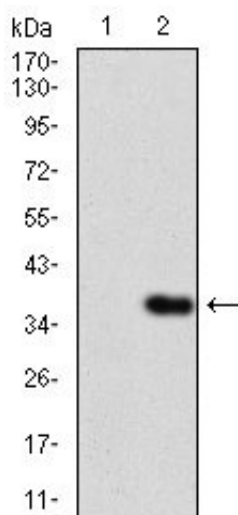


Figure 2: Western blot analysis using IL3RA mAb against HEK293 (1) and IL3RA (AA: 200-305)-hlgGfc transfected HEK293 (2) cell lysate.

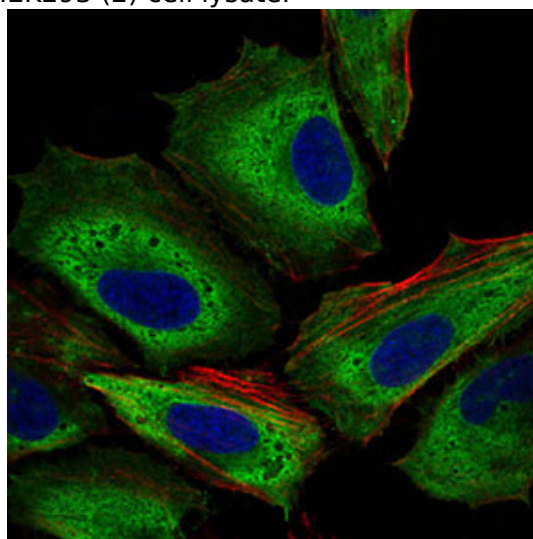


Figure 3: Immunofluorescence analysis of HeLa cells using IL3RA mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

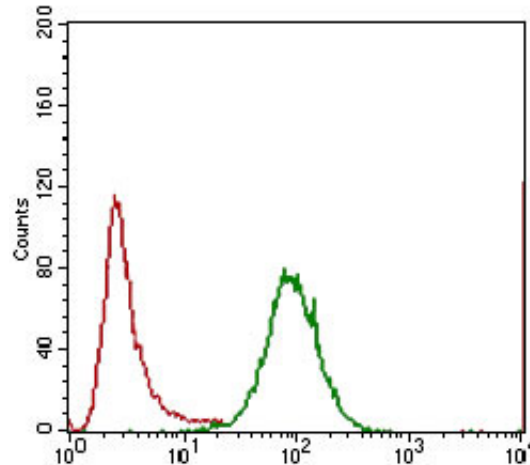


Figure 4: Flow cytometric analysis of Hela cells using IL3RA mouse mAb (green) and negative control (red).

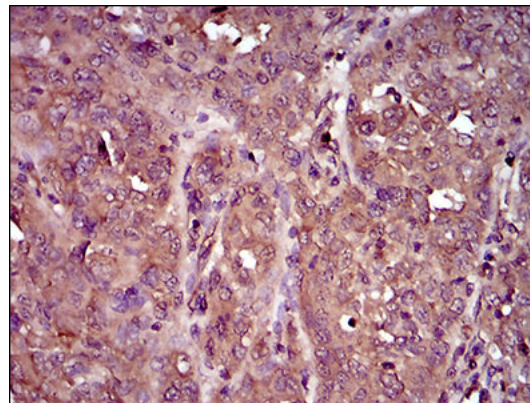


Figure 5: Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using IL3RA mouse mAb with DAB staining.

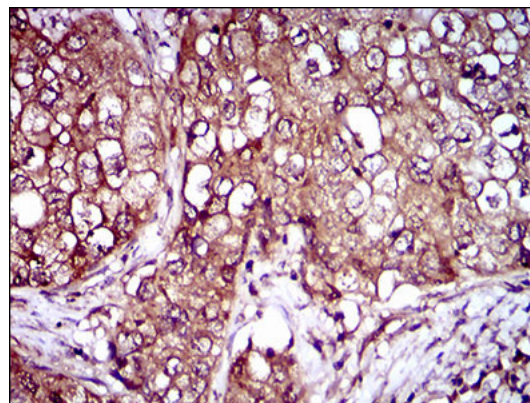


Figure 6: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using IL3RA mouse mAb with DAB staining.

IL3RA Antibody - Background

The protein encoded by this gene is an interleukin 3 specific subunit of a heterodimeric cytokine receptor. The receptor is comprised of a ligand specific alpha subunit and a signal transducing beta subunit shared by the receptors for interleukin 3 (IL3), colony stimulating factor 2 (CSF2/GM-CSF), and interleukin 5 (IL5). The binding of this protein to IL3 depends on the beta subunit. The beta subunit is activated by the ligand binding, and is required for the biological activities of IL3. This gene and the gene encoding the colony stimulating factor 2 receptor alpha chain (CSF2RA) form a cytokine receptor gene cluster in a X-Y pseudoautosomal region on chromosomes X or Y.

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IL3RA Antibody - References

1. Am J Clin Pathol. 2011 Oct;136(4):625-30.
2. Chin Med J (Engl). 2010 Aug 5;123(15):2034-7.