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IL3RA Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1819a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P26951
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	8E11C5
Isotype	IgG1
Calculated MW	43330
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

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	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000
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.

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:10527461). Ligand stimulation rapidly induces hetrodimerization 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	Cell membrane; Single-pass type I membrane protein

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. Alternatively spliced transcript variants encoding distinct isoforms have been found. ; ; ; ;

References

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

Images

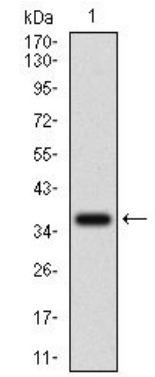

Figure 1: Western blot analysis using IL3RA mAb against human IL3RA recombinant protein. (Expected MW is 38.3 kDa)

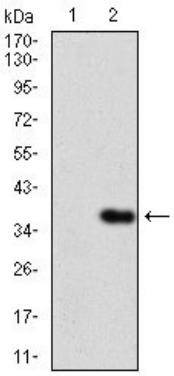

Figure 2: Western blot analysis using IL3RA mAb against HEK293 (1) and IL3RA (AA: 200-305)-hIgGFc transfected HEK293 (2) cell lysate.

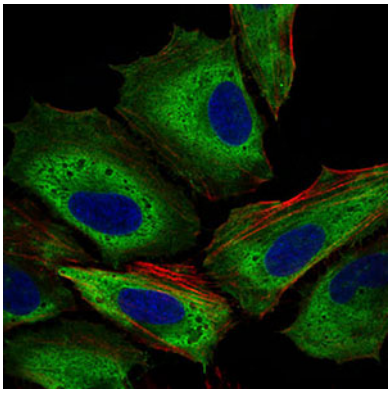

Figure 3: Immunofluorescence analysis of Hela cells using IL3RA mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

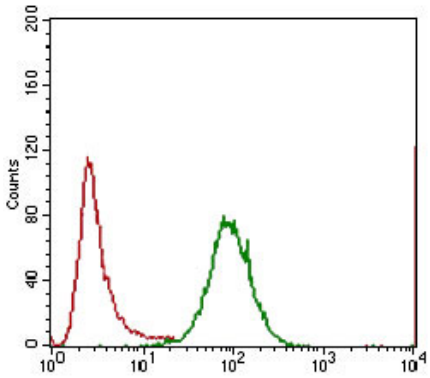

Figure 4: Flow cytometric analysis of Hela cells using IL3RA mouse mAb (green) and negative control (red).

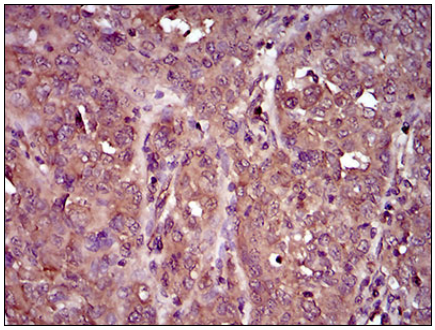

Figure 5: Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using IL3RA mouse mAb with DAB staining.

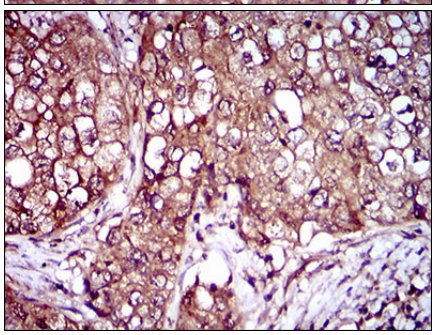

Figure 6: Immunohistochemical analysis of paraffin-embedded lung cancer tissues using IL3RA mouse mAb with DAB staining.