

Datasheet for 109-401-310**IL-6 Antibody****Overview**

Description:	Anti-Human IL-6 (RABBIT) Antibody - 109-401-310
Item No.:	109-401-310
Size:	1 mL
Applications:	Dot Blot, WB, IHC
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	Anti-IL-6 Antibody recognizes human IL-6 that is a secreted cytokine with a wide variety of biological functions. IL-6 is a potent inducer of the acute phase response and plays an essential role in the final differentiation of B-cells into Ig-secreting cells involved in lymphocyte and monocyte differentiation. IL-6 induces myeloma and plasmacytoma growth and induces nerve cells differentiation and acts on B-cells, T-cells, hepatocytes, hematopoietic progenitor cells and cells of the CNS. IL-6 also acts as a myokine. It is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance. Anti-IL6 antibody is ideal for investigators involved in Immunology and Cancer research.
Synonyms:	HSF, Hybridoma growth factor, HGF, Hybridoma plasmacytoma growth factor, IL 6, IL6 protein, IFNB2, Interferon beta 2, BSF2, CDF, B-Cell Differentiation Factor, B-cell stimulatory factor 2, CTL differentiation factor, rabbit anti-Interleukin 6 Antibody, rabbit anti-IL-6
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	IL6
Reactivity:	Human
Immunogen Type:	Recombinant Protein

Immunogen:	This whole rabbit serum was prepared by repeated immunizations with recombinant human IL-6 produced in E.coli.
Purity/Specificity:	Anti-IL-6 antiserum detects recombinant and native IL-6 present in body fluids and cell supernatants in various assays (ie. IL-1 stimulated IL-6 production from fibroblasts). This product has minimal reactivity with mouse IL-6.
Relevant Links:	• UniProtKB - P05231 • NCBI - NP_000591.1 • GeneID - 3569

Application Details

Tested Applications:	Dot Blot, WB
Suggested Applications:	IHC (Based on references)
Application Note:	IL-6 antibody has been tested in western blot. This antibody is suitable for use in neutralizations, ELISA, radioimmunoassay, and immunoprecipitation. Reactivity in other immunoassays is unknown. Expect ~23.7kDa. In Western blot analysis of natural cell products or human body fluids, multiple bands of IL-6 will appear due to the variable amount of glycosylation on the molecule. For immunoblot use the supernatants or lysates of 2 x 10 ⁶ endotoxin-stimulated human peripheral blood mononuclear cells (PBMC). PBMC are stimulated for 24 hours with 1% (v/v) human serum plus 10ng/mL E. coli LPS. For immunoprecipitation, pre-clearing with a non-specific rabbit IgG is helpful to reduce background. The antiserum is useful for neutralization of human IL-6 activity in bioassays. For neutralization, incubate the sample with a 1:400 dilution of the antiserum for at least 4 hours before being tested. A control of similarly diluted normal rabbit IgG (heat inactivated) is recommended. In neutralization experiments in vitro, this antibody does not result in enhanced activity of IL-6. However, because antibodies to IL-6 may act as a soluble receptor in vivo, some antibodies to IL-6 act as carriers and enhance IL-6 activity.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,000 - 1:5,000
IHC:	1:400 - 1:800
IP:	1:400 - 1:800
Neutralization:	1:400
WB:	1:500 - 1:2,000

Formulation

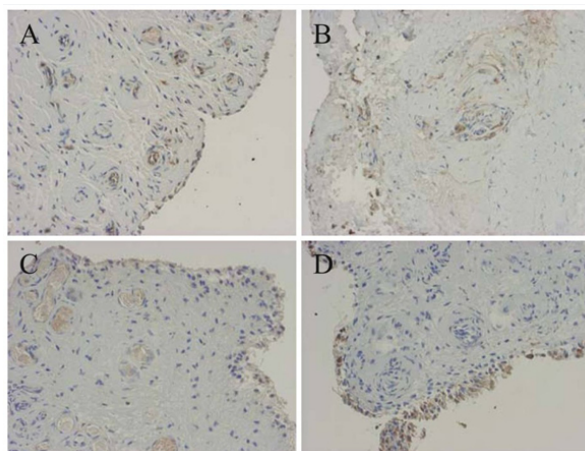
Physical State:	Liquid (sterile filtered)
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Concentration:	80 mg/mL by Refractometry
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	None
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. 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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



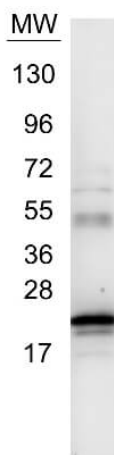
Immunohistochemistry

Immunohistochemical (H&E) examination of synovial tissues in a frozen shoulder.

10 mM sodium citrate buffer (pH 6.4)

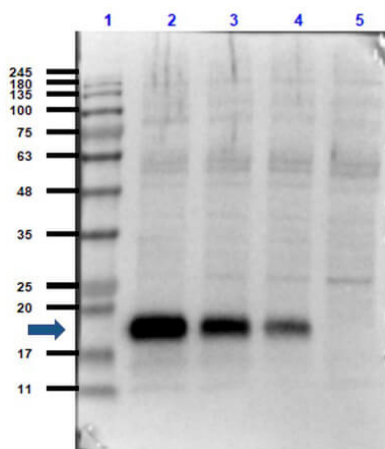
(A) Matrix metalloproteinase-3 (1: 100). (B) Interleukin-6 (1: 6000). (C) Vascular endothelial growth factor (1: 800). (D) CD68 (1: 1000). (x200)

Fig 2. PMID: 19214689



Western Blot

Western blot using Rockland's Anti-IL6 antibody. Protein was resolved on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred onto nitrocellulose. The blot shows detection of a band ~21 kDa in size corresponding to anti-IL6 antibody. Molecular weight markers are also shown (MW). After transfer, the membrane was blocked for 30 minutes with 1% BSA-TBST. Detection occurred using peroxidase conjugated Goat anti-Rabbit IgG (p/n 611-103-122) secondary antibody diluted 1:40,000 in blocking buffer (p/n MB-070) for 30 min at RT followed by reaction with FemtoMax™ chemiluminescent substrate. Image was captured using VersaDoc™ MP 4000 imaging system (Bio-Rad).



Western Blot

Western Blot of Rabbit Anti-IL-6 Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: Human Rec. IL-6/HeLa Whole Cell Lysate [0.05µg/10µg]. Lane 3: Human Rec. IL-6/HeLa Whole Cell Lysate [0.02µg/10µg]. Lane 4: Human Rec. IL-6/HeLa Whole Cell Lysate [0.01µg/10µg]. Lane 5: HeLa Whole Cell Lysate (p/n W09-000-364) [10µg]. Primary Antibody: Anti-IL-6 at 1:1000 overnight at 2-8°C. Secondary Antibody: Goat Anti-Rabbit IgG HRP conjugate (p/n 611-103-122) at 1:70,000 for 30mins at RT. Block: BlockOut Buffer (p/n MB-073). Predicted MW: ~23kDa. Observed MW: ~19 Exposure: 2 seconds.

References

- Asano S et al. Preliminary report: the relevance of tumor necrosis factor- α in acquired primary lymphedema—a histopathological investigation. *Lymphat Res Biol.* (2020)
- Kanbe, K et al. Inducement of mitogen-activated protein kinases in frozen shoulders. *Journal of Orthopaedic Science : Official Journal of the Japanese Orthopaedic Association* (2009)

Disclaimer

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