

IL2 Antibody (Center) (Ascites)

Mouse Monoclonal Antibody (Mab) Catalog # AM2117a

### Specification

### IL2 Antibody (Center) (Ascites) - Product Information

Application	WB,E
Primary Accession	<u>P60568</u>
Other Accession	<u>NP_000577.2</u>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	lgG1
Calculated MW	17628
Antigen Region	50-77

# IL2 Antibody (Center) (Ascites) - Additional Information

Gene ID 3558

**Other Names** Interleukin-2, IL-2, T-cell growth factor, TCGF, Aldesleukin, IL2

Target/Specificity

This IL2 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 50-77 amino acids from the Central region of human IL2.

**Dilution** WB~~1:100~1600 E~~Use at an assay dependent concentration.

Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Storage

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

**Precautions** IL2 Antibody (Center) (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

### IL2 Antibody (Center) (Ascites) - Protein Information

Name IL2

**Function** Cytokine produced by activated CD4-positive helper T-cells and to a lesser extend activated CD8-positive T-cells and natural killer (NK) cells that plays pivotal roles in the immune



response and tolerance (PubMed:<u>6438535</u>). Binds to a receptor complex composed of either the high-affinity trimeric IL-2R (IL2RA/CD25, IL2RB/CD122 and IL2RG/CD132) or the low-affinity dimeric IL-2R (IL2RB and IL2RG) (PubMed:<u>16293754</u>, PubMed:<u>16477002</u>). Interaction with the receptor leads to oligomerization and conformation changes in the IL-2R subunits resulting in downstream signaling starting with phosphorylation of JAK1 and JAK3 (PubMed:<u>7973659</u>). In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5 (PubMed:<u>8580378</u>). This process leads to activation of several pathways including STAT, phosphoinositide-3- kinase/PI3K and mitogen-activated protein kinase/MAPK pathways (PubMed:<u>25142963</u>). Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well (PubMed:<u>6608729</u>). Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production (PubMed:<u>6438535</u>). Plays a pivotal role in regulating the adaptive immune system by controlling the survival and proliferation of regulatory T-cells, which are required for the maintenance of immune tolerance. Moreover, participates in the differentiation and homeostasis of effector T-cell subsets, including Th1, Th2, Th17 as well as memory CD8-positive T-cells.

Cellular Location Secreted.

# IL2 Antibody (Center) (Ascites) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- <u>Flow Cytomety</u>
- <u>Cell Culture</u>
- IL2 Antibody (Center) (Ascites) Images



IL2 Antibody (Center)(Ascites)(Cat. #AM2117a) western blot analysis in K562 cell line lysates (35µg/lane).This demonstrates the IL2 antibody detected the IL2 protein (arrow).

### IL2 Antibody (Center) (Ascites) - Background

The protein encoded by this gene is a secreted cytokine



that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine is a heterotrimeric protein complex whose gamma chain is also shared by interleukin 4 (IL4) and interleukin 7 (IL7). The expression of this gene in mature thymocytes is monoallelic, which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis-like disease, which suggests an essential role of this gene in the immune response to antigenic stimuli.

### IL2 Antibody (Center) (Ascites) - References

Zhu, P., et al. J. Immunol. 185(9):5140-5149(2010) Muller, T., et al. Scand. J. Immunol. 72(4):365-371(2010) Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) : Horowitz, A., et al. J. Immunol. 185(5):2808-2818(2010) Wu, Z., et al. J Mol Cell Biol 2(4):217-222(2010)