

**IL-2 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1257a****Specification**

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**IL-2 Antibody - Product Information**

Application	<b>WB, IHC, IF</b>
Primary Accession	<a href="#">P60568</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>17.6kDa KDa</b>

**Description**

IL-2: interleukin-2. Entrez Protein NP\_000577. It is a 17.6kDa 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.

**Immunogen**

Purified recombinant fragment of IL2 expressed in E. Coli.

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**IL-2 Antibody - Additional Information**

**Gene ID** 3558

**Other Names**

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

**Dilution**

WB~~1/500 - 1/2000

IHC~~1:200~~1000

IF~~1:200~1000.

**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**

IL-2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**IL-2 Antibody - Protein Information**

## Name IL2

### Function

Cytokine produced by activated CD4-positive helper T-cells and to a lesser extent activated CD8-positive T-cells and natural killer (NK) cells that plays pivotal roles in the immune response and tolerance (PubMed: [6438535](http://www.uniprot.org/citations/6438535)). 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: [16293754](http://www.uniprot.org/citations/16293754), PubMed: [16477002](http://www.uniprot.org/citations/16477002)). 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: [7973659](http://www.uniprot.org/citations/7973659)). In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5 (PubMed: [8580378](http://www.uniprot.org/citations/8580378)). This process leads to activation of several pathways including STAT, phosphoinositide-3-kinase/PI3K and mitogen-activated protein kinase/MAPK pathways (PubMed: [25142963](http://www.uniprot.org/citations/25142963)). Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well (PubMed: [6608729](http://www.uniprot.org/citations/6608729)). Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production (PubMed: [6438535](http://www.uniprot.org/citations/6438535)). 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

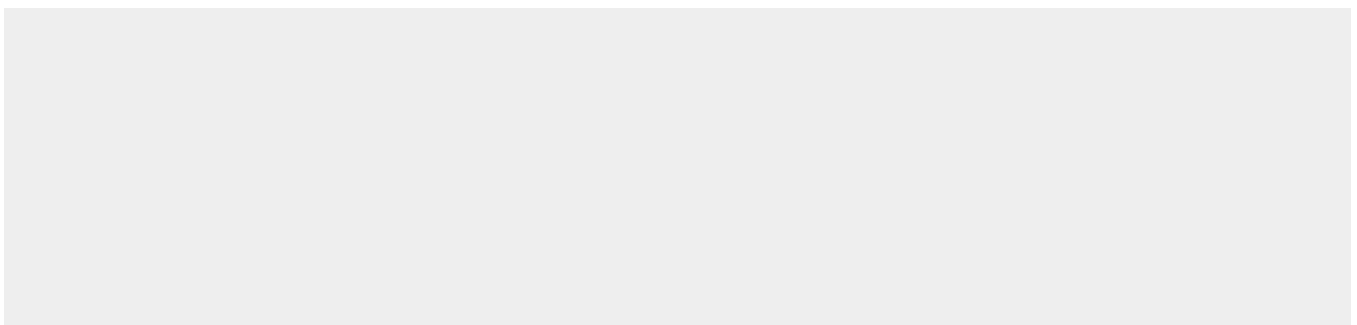
Secreted.

## IL-2 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](#)

## IL-2 Antibody - Images



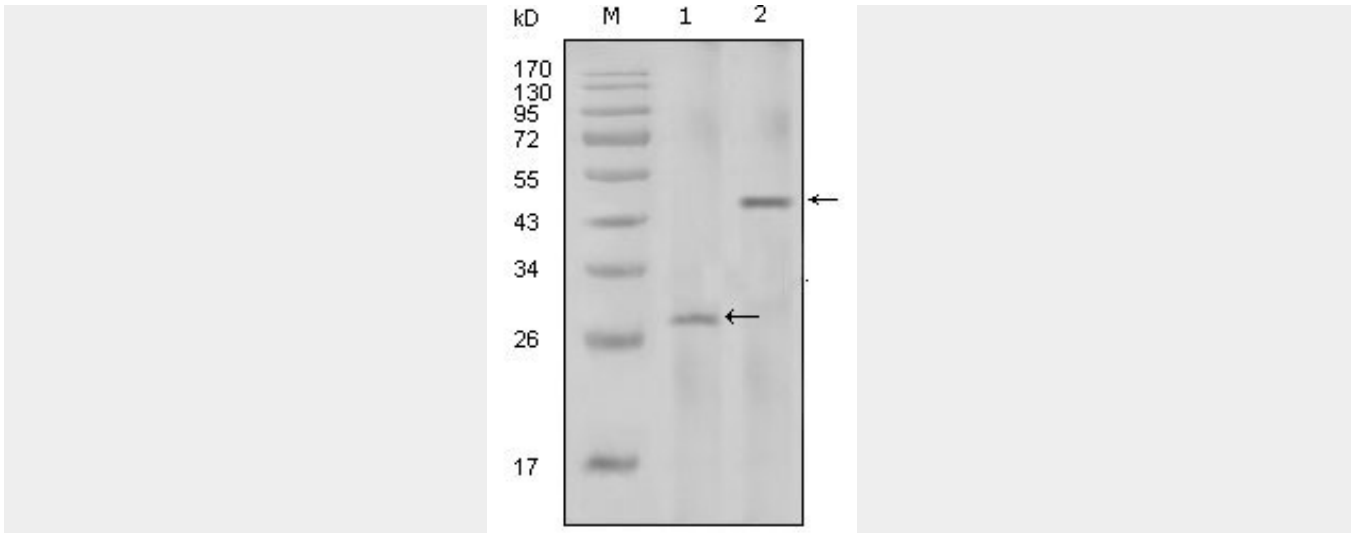


Figure 1: Western blot analysis using IL2 mouse mAb against full-length IL2 recombinant protein with Trx tag (1) and full-length IL2-hlgGFc transfected HEK293 cell lysate(2).

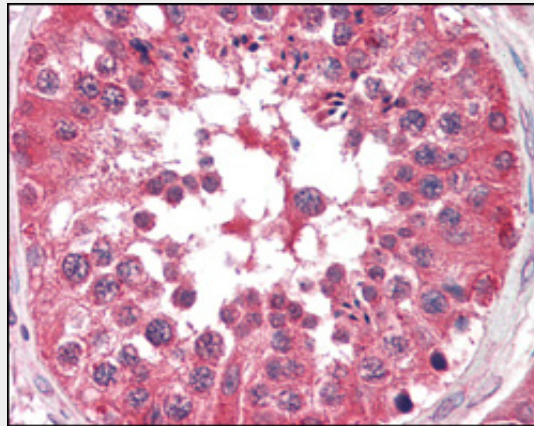


Figure 2: Immunohistochemical analysis of paraffin-embedded human testis tissues using BRAF mouse mAb.

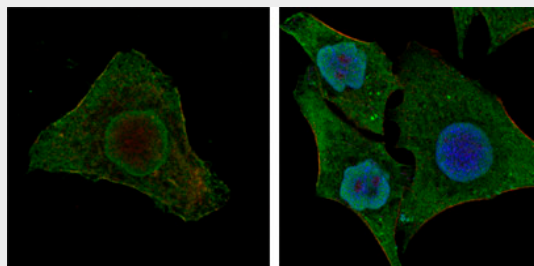


Figure 3: Confocal immunofluorescence analysis of MCF-7 (left) and HepG2 (right) cells using anti-BRAF mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye

**IL-2 Antibody - References**

1. Leukemia. 2008 Dec;22(12):2201-7.
2. J Immunol. 2008 Feb 1;180(3):1490-8.