

IL2 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6912c**Specification**

IL2 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [P60568](#)**IL2 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 3558**Other Names**

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

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6912c](/products/AP6912c) was selected from the Center region of human IL2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

IL2 Antibody (Center) Blocking Peptide - 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: <http://www.uniprot.org/citations/6438535> target="_blank">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: <http://www.uniprot.org/citations/16293754> target="_blank">16293754, PubMed: <http://www.uniprot.org/citations/16477002> target="_blank">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: <http://www.uniprot.org/citations/7973659> target="_blank">7973659). In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5 (PubMed: <a

[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.

IL2 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

IL2 Antibody (Center) Blocking Peptide - Images

IL2 Antibody (Center) Blocking Peptide - Background

IL2 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).

IL2 Antibody (Center) Blocking Peptide - References

Reyes-Gibby,C.C., et.al., Cancer Epidemiol. Biomarkers Prev. 18 (10), 2636-2642 (2009)