

### Interleukin II (60-70)

Synthetic Peptide Catalog # SP2940a

# **Specification**

# Interleukin II (60-70) - Product Information

Primary Accession Other Accession Sequence

<u>097513</u> <u>P60568</u>, <u>P60569</u>, <u>P46649</u>, <u>Q865X2</u>, <u>Q29615</u> **NH2-LTFKFYMPKKA-COOH** 

# Interleukin II (60-70) - Additional Information

### **Other Names**

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

#### **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.

### Interleukin II (60-70) - Protein Information

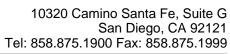
# Name IL2

### **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. 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). 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. In turn, JAK1 and JAK3 phosphorylate the receptor to form a docking site leading to the phosphorylation of several substrates including STAT5. This process leads to activation of several pathways including STAT, phosphoinositide-3-kinase/PI3K and mitogen-activated protein kinase/MAPK pathways. Functions as a T-cell growth factor and can increase NK-cell cytolytic activity as well. Promotes strong proliferation of activated B-cells and subsequently immunoglobulin production. 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.





Interleukin II (60-70) - Images