

IL-2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP58236

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	<u>P04351</u>
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	19400
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse IL-2
Epitope Specificity	81-169/169
Isotype	IgG
Purity	affinity purified by Protein A
Buffor	0.01M TPS (pH7.4) with 1% PSA 0.02% Proclin200 and 50% Glycorol
	Socrated
SUBCELEULAR LOCATION	Belongs to the IL 2 family
	Note-A chromosomal aborration involving IL2 is found in a form of T coll
DISEASE	acute lymphoblastic leukemia $(T-A I)$. Translocation $t(4:16)(a;26:n13)$ with
	involves TNFRSE17
Important Note	This product as supplied is intended for research use only not for use in
	human, therapeutic or diagnostic applications.
Background Descriptions	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 monoalienc, which represents an unusual regulatory
	discustion of a similar gone in miss loads to ulcorative solitis like discase
	which suggests an essential role of this game in the immune response to
	antigenic stimuli Inrovided by PefSeq. Jul 20081
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Additional Information

Gene ID	16183
Other Names	Interleukin-2, IL-2, T-cell growth factor, TCGF, Il2, Il-2
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000 -10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

Protein Information

Name	II2
Synonyms	II-2
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>14614860</u> , PubMed: <u>9814585</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). 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 (PubMed: <u>14614860</u> , PubMed: <u>27018889</u>). 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 (PubMed: <u>14614860</u>). Moreover, participates in the differentiation and homeostasis of effector T-cell subsets, including Th1, Th2, Th17 as well as memory CD8-positive T- cells (PubMed: <u>9814585</u>).
Cellular Location	Secreted.
Tissue Location	Produced by immune cells including dendritic cells. In contrast, macrophages do not produce IL2 upon bacterial stimulation

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.