



Goat anti Bovine IL2 polyclonal antibody [Biotin] (CABT-L114)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects bovine IL-2 in ELISAs and Western blots. In sandwich immunoassays, less than 0.2% cross-reactivity with recombinant human IL-2, recombinant mouse IL-2, recombinant rat IL-2, recombinant feline IL-2, recombinant canine IL-2, recombinant equine IL-2, recombinant cotton rat IL-2, and recombinant porcine IL-2 is observed.
Target	IL-2
Immunogen	E. coli-derived recombinant bovine IL-2, Ala21-Thr155, Accession #P05016
Isotype	IgG
Source/Host	Goat
Species Reactivity	Bovine
Purification	Antigen Affinity-purified
Conjugate	Biotin
Applications	ELISA(Det), WB
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Format	Lyophilized
Size	50 µg
Buffer	PBS with BSA
Preservative	None

Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.
Ship	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

BACKGROUND

Introduction	<p>Bovine Interleukin-2 (IL-2) is a 15 kDa, alpha-helical, single chain, potentially glycosylated polypeptide that has potent stimulatory activity for antigen-activated T cells. The molecule is synthesized as a 155 amino acid (aa) precursor that contains a 20 aa signal peptide plus a 135 aa mature segment that is possibly O-glycosylated. The mature region has multiple alpha-helices and one intrachain disulfide bond. Mature bovine IL-2 is 64%, 60%, 49%, 50%, 72%, 63% and 67% identical to mature human, canine, mouse, rat, porcine, equine, and feline IL-2, respectively. Mammalian cells known to express IL-2 include CD4+ and CD8+ T cells, visceral smooth muscle cells, eosinophils, gamma delta T cells, B cells and dendritic cells. The receptor for IL-2 is complex and consists of three distinct subunits in varying combinations. Two of these are ligand-binding and are termed IL-2 R alpha and IL-2 R beta. IL-2 R alpha is 55 kDa and binds IL-2 with low affinity. IL-2 R beta is 75 kDa and binds IL-2 with intermediate affinity. Signal transduction is performed by both IL-2 R beta and a 64 kDa common gamma chain (gamma c). This signal transducing common gamma chain does not bind IL-2, but does heterodimerize with IL-2 R beta to form a functional IL-2 receptor. The complex heterotrimeric alpha-beta-gamma c receptor may arise from IL-2 binding to preformed R alpha-R beta complexes. Functionally, IL-2 is best known for its autocrine and paracrine activity on T cells. It drives resting T cells into active G1, inducing IL-2 and IL-2 R alpha synthesis and cell proliferation. It also promotes Fas-induced death of naïve CD4+ T cells, while having minimal effect on activated CD4+ memory lymphocytes. Finally, IL-2 seems to play a central role in the expansion and maintenance of CD4+ CD25+ regulatory T cells. Thus, IL-2 may be a key cytokine in the natural suppression of autoimmunity.</p>
Keywords	<p>alderleukin;IL2;IL-2;IL-2lymphokine;interleukin 2;interleukin-2;involved in regulation of T-cell clonal expansion;T cell growth factor;T-cell growth factor;TCGF</p>

GENE INFORMATION

Entrez Gene ID	280822
UniProt ID	P05016