Feline IL-2 Alexa Fluor® 594-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1890T
100 µg

DESCRIPTION

Species Reactivity	Feline
Specificity	Detects feline IL-2 in ELISAs and Western blots. In sandwich immunoassays, approximately 3% cross-reactivity with recombinant canine IL-2 is observed, approximately 1% cross reactivity with recombinant human IL-2 and recombinant porcine IL-2 is obser
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant feline IL-2 Ala21-Thr154 (Cys146Ser) Accession # Q07885
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Interleukin-2 (IL-2) is a secreted, single chain α-helical polypeptide that has potent stimulatory activity for antigen-activated T cells. The feline IL-2 gene encodes a 154 amino acid (aa) precursor protein with a 20 aa signal peptide plus a 134 aa mature segment. There are suggestions that the mature protein may be O-glycosylated. At the aa sequence level, mature feline IL-2 is 78%, 82%, 60%, 64%, 62%, 75%, 62%, and 76% identical to mature human, canine, mouse, rat, cotton rat, porcine, goat, and equine IL-2, respectively. Mammalian cells known to express IL-2 include $CD4^+$ and $CD8^+$ T cells, visceral smooth muscle cells, eosinophils, γδ T cells, B cells and dendritic cells. The biological activity of IL-2 is mediated by IL-2 receptor complexes consisting of three distinct subunits (α, β, γ) in two combinations. The high-affinity signaling IL-2 receptor complex is a heterotrimer of the IL-2 receptor α, β, γ subunits. The intermediate signaling complex is a heterodimer of the IL-2 Rβ and γ subunits. The non-ligand binding γ subunit, referred to as the common γ subunit (γ_c), is also a subunit of the receptor complexes of IL-4, IL-7, IL-9 and IL-15. Functionally, IL-2 is best known for its autocrine and paracrine activity on T cells. On naïve $CD8^+$ T cells, high IL-2 levels can induce cell proliferation with a bias towards cytotoxicity. In the presence of low levels of IL-2, $CD8^+$ T cells preferentially undergo apoptosis with a bias towards cytokine secretion. IL-2 also seems to play a central role in the expansion and maintenance of $CD4^+$ $CD25^+$ regulatory T cells. This indicates IL-2 may be a key cytokine in the natural suppression of autoimmunity (1-9).

PRODUCT SPECIFIC NOTICES

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