

DESCRIPTION

Species Reactivity	Canine
Specificity	Detects canine IL-17 in direct ELISAs. In direct ELISAs, approximately 25% cross-reactivity with recombinant human (rh) IL-17A is observed and no cross-reactivity with rhIL-17F or recombinant mouse IL-17A is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 665909
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant canine IL-17 Gly26-Ala155 Accession # NP_001159350
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.

Neutralization 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 17 (IL-17; also IL-17A and CTLA-8) is a 17 kDa member of the IL-17 family of cytokines (1). Members of this family demonstrate a structural motif termed a cysteine knot which characterize a large superfamily of growth factors. Although most cysteine knot superfamily members use three intrachain disulfide bonds to create a knot, IL-17 family molecules generate the same structural form with only two disulfide links (2-4). Based on the amino acid (aa) sequence alignment with human IL-17, canine IL-17 is 130 aa in length. It is secreted as a 35 kDa disulfide-linked homodimer and as a 40 kDa disulfide-linked heterodimer with IL-17F (5). Canine IL-17 is 81% identical on the aa level to human IL-17. IL-23 drives Th17 lymphocytes to produce IL-17 (6-8). IL-17's production has also been demonstrated in γδ T cells (9), CD8⁺ memory T cells (10-11), eosinophils (12), neutrophils (10), and monocytes (13). Studies have identified that the widely expressed receptors IL-17RA and IL-17RC form a heterodimer for the binding of IL-17 (6, 14-15). The predominant function of IL-17 is thought to be as a proinflammatory mediator through a variety of mechanisms (16). Locally, IL-17 stimulates production of IL-6, prostaglandin E and nitric oxide (16-19), and synergy with other inflammatory cytokines such as TNF-α, IL-1β and IFN-γ leads to up-regulation of gene expression and progression and amplification of local inflammation (16, 20-22). IL-17 also mediates chemotaxis of neutrophils and monocytes to sites of inflammation through the chemoattractant mediators IL-8, GRO-α, and MCP-1 (16, 22-25) while augmenting production of hematopoietic growth factors, such as G-CSF and GM-CSF (16, 26, 27), which promote the growth and maturation of the recruited myeloid cells. In addition, IL-17 serves as a bridge between innate and adaptive immune responses by enhancing the induction of co-stimulatory molecules such as ICAM-1 and other cytokines (16, 22, 28), thereby supporting T cell activation. IL-17 expression has been associated with many inflammatory diseases, such as rheumatoid arthritis, multiple sclerosis, asthma, systemic lupus erythematosus and allograft rejection (15).

PRODUCT SPECIFIC NOTICES

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