



Goat anti Canine TNF polyclonal antibody [Biotin] (CABT-L130)

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

PRODUCT INFORMATION

Specificity	Detects canine TNF-alpha in ELISAs and Western blots. In sandwich immunoassays, approximately 40% cross-reactivity with recombinant human TNF-alpha and recombinant rhesus macaque TNF-alpha is observed, less than 2% cross-reactivity with recombinant porcine (rp) TNF-alpha is observed, and less than 0.5% cross-reactivity with recombinant mouse (rm) TNF-alpha, recombinant rat (rr) TNF-alpha, recombinant cotton rat (rcr) TNF-alpha, and recombinant equine TNF-alpha is observed.
Target	TNF-alpha
Immunogen	E. coli-derived recombinant canine TNF-alpha, Val77-Leu233, Accession #P51742
Isotype	IgG
Source/Host	Goat
Species Reactivity	Canine
Purification	Antigen Affinity-purified
Conjugate	Biotin
Applications	ELISA(Det), ICC/IF, 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>Tumor necrosis factor alpha (TNF-alpha), also known as cachectin, is the prototypic ligand of the TNF superfamily. It is a pleiotropic molecule that plays a central role in inflammation, apoptosis, and immune system development. TNF-alpha is produced by a wide variety of immune and epithelial cell types. Canine TNF-alpha consists of a 35 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 177 aa extracellular domain (ECD). Within the ECD, canine TNF-alpha share 84-94% aa sequence identity with equine, feline, human, porcine, and rhesus and 69-77% with bovine, cotton rat, mouse, and rat with TNF-alpha. The 26 kDa type 2 transmembrane protein is assembled intracellularly to form a noncovalently linked homotrimer. Ligation of this complex induces reverse signaling that promotes lymphocyte co-stimulation but diminishes monocyte responsiveness. Cleavage of membrane bound TNF-alpha by TACE/ADAM17 releases a 55 kDa soluble trimeric form of TNF-alpha. TNF-alpha trimers bind the ubiquitous TNF RI and the hematopoietic cell-restricted TNF RII, both of which are also expressed as homotrimers. TNF-alpha regulates lymphoid tissue development through control of apoptosis. It also promotes inflammatory responses by inducing the activation of vascular endothelial cells and macrophages. TNF-alpha is a key cytokine in the development of several inflammatory disorders. It contributes to the development of type 2 diabetes through its effects on insulin resistance and fatty acid metabolism.</p>
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Keywords	APC1 protein; Cachectin; Cachetin; DIF; TNF; TNF; monocyte-derived; tnfa; tnf-a; TNFalpha; TNF-alpha; TNF-alphacachectin; TNFATNF; macrophage-derived; TNFSF1A; TNFSF2; TNFSF2TNF superfamily; member 2; tumor necrosis factor (TNF superfamily; member 2); tumor necrosis factor alpha; Tumor necrosis factor ligand superfamily member 2; tumor necrosis factor; tumor necrosis factor-alpha
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GENE INFORMATION

Entrez Gene ID [403922](#)

UniProt ID [P51742](#)