



# Goat anti Bovine TNF polyclonal antibody [Biotin] (CABT-L116)

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

## PRODUCT INFORMATION

<b>Specificity</b>	Detects TNF-alpha in ELISAs and Western blots. In sandwich immunoassays, less than 0.3% cross-reactivity with recombinant human TNF-alpha, recombinant mouse TNF-alpha, recombinant rat TNF-alpha, recombinant feline TNF-alpha, recombinant equine TNF-alpha, recombinant porcine TNF-alpha, recombinant cotton rat TNF-alpha, and rhesus macaque TNF-alpha is observed.
<b>Target</b>	TNF-alpha
<b>Immunogen</b>	E. coli-derived recombinant bovine TNF-alpha, Leu78-Leu234, Accession #Q06599
<b>Isotype</b>	IgG
<b>Source/Host</b>	Goat
<b>Species Reactivity</b>	Bovine
<b>Purification</b>	Antigen Affinity-purified
<b>Conjugate</b>	Biotin
<b>Applications</b>	ELISA(Det), ICC/IF, WB
<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Format</b>	Lyophilized
<b>Size</b>	50 µg
<b>Buffer</b>	PBS with BSA
<b>Preservative</b>	None

<b>Storage</b>	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.
<b>Ship</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

## BACKGROUND

<b>Introduction</b>	Tumor necrosis factor alpha (TNF-alpha, also known as cachectin and TNFSF2, 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. Bovine TNF-alpha consists of a 35 amino acid (aa) cytoplasmic domain, a 21 aa transmembrane segment, and a 178 aa extracellular domain (ECD). Within the ECD, bovine TNF-alpha shares 64%-83% sequence identity with canine, cotton rat, equine, feline, human, mouse, porcine, rat, and rhesus 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 costimulation 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 several inflammatory disorders. It contributes to the development of type 2 diabetes through its effects on insulin resistance and fatty acid metabolism.
<b>Keywords</b>	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

## GENE INFORMATION

<b>Entrez Gene ID</b>	<a href="#">280943</a>
<b>UniProt ID</b>	<a href="#">Q06599</a>