



Mouse anti Canine TNF monoclonal antibody, clone 347923 (CABT-L129)

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

PRODUCT INFORMATION

Specificity	Detects canine TNF-alpha in direct ELISAs. In direct ELISAs, 25-100% cross-reactivity with recombinant human TNF-alpha, recombinant porcine TNF-alpha, and recombinant rhesus macaque TNF-alpha is observed.
Target	TNF-alpha
Immunogen	E. coli-derived recombinant canine TNF-alpha, Val77-Leu233, Accession #P51742
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Canine
Clone	347923
Purification	Protein A or G purified from hybridoma culture supernatant
Conjugate	Unconjugated
Applications	ELISA(Cap), ICC/IF
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Format	Lyophilized; Small package size(SP): Liquid
Size	25 µg, 500 µg
Buffer	PBS with Trehalose
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. *Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

BACKGROUND

Introduction	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.
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

GENE INFORMATION

Entrez Gene ID	403922
UniProt ID	P51742
