



Rat anti Rhesus Macaque TNF monoclonal antibody, clone 293423 (CABT-L376)

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

PRODUCT INFORMATION

Specificity	Detects rhesus macaque TNF-alpha in direct ELISAs and Western blots. In Western blots, this antibody does not cross-react with recombinant mouse (rm) EDA, rmFas Ligand, rmOX40, rcrTNF-alpha, rhTNF-alpha, rmTNF-alpha, rpTNF-alpha, rrTNF-alpha, rmTRAIL, or rmTWEAK.
Target	TNF-alpha
Immunogen	E. coli-derived recombinant rhesus macaque TNF-alpha Val77-Leu233, Accession #P48094
Isotype	IgG2A
Source/Host	Rat
Species Reactivity	Rhesus Macaque
Clone	293423
Purification	Protein A or G purified from hybridoma culture supernatant
Conjugate	Unconjugated
Applications	ELISA(Cap)
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	<p>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. Rhesus 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, rhesus TNF-alpha shares 97% aa sequence identity with human and 71%-92% with bovine, canine, cotton rat, equine, feline, mouse, porcine, and rat 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 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>
---------------------	--

Keywords	Tumor necrosis factor alpha;cachectin;TNFSF2
-----------------	--

GENE INFORMATION

UniProt ID	Q09H18
-------------------	------------------------