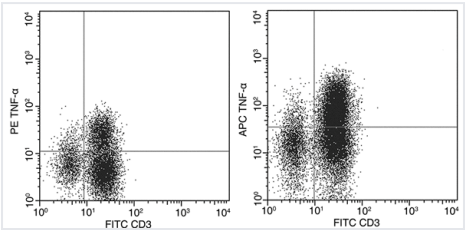
Alpha (TNF) Antibody – Rabbit Monoclonal

PRODUCT OVERVIEW

Product Name	TNF-alpha, Monoclonal Antibody
Full Product Name	Recombinant Anti-TNF-alpha Antibody (PE), Rabbit Monoclonal
Product Gene Name	anti-TNF antibody
Product Synonym Names	TNF-alpha/TNFA Antibody (PE), Rabbit MAb; tumor necrosis factor; Anti-DIF Antibody; Anti-TNF-alpha Antibody; Anti-TNFA Antibody; Anti-TNFSF2 Antibody
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	101
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid; Aqueous solution containing 0.5% BSA and 0.09% sodium azide
Purity/Purification	Protein A
Concentration	2ul/Test, 0.1mg/ml (lot specific)
Specificity	Human TNF-alpha/TNFA
Preparation and Storage	This antibody can be stored at 2-8 degree C for twelve months without detectable loss of activity. Protected from prolonged exposure to light. Do not freeze! Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal.
Matching Pairs	Antibody: TNF Clone #101 (MBS8103323) Immunogen: TNF (MBS8118642)
Molecular Weight	25,644 Da
Chromosome Location	Chromosome: 6; NC_000006.11 (31543344..31546113). Location: 6p21.3
OMIM	191160
3D Structure	ModBase 3D Structure for P01375
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human TNF-alpha/TNFA Protein
Conjugation	PE
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human TNF-alpha/TNFA (rh TNF-alpha/TNFA) and conjugated with PE under optimum conditions, the unreacted PE was removed.
Product Categories/Family for anti-TNF antibody	Cancer Drug Targets Neuroinflammation; Death Receptor Signaling
Applications Tested/Suitable for anti-TNF antibody	Flow Cytometry (FC/FACS/FCM)

Related Product Information for anti-TNF antibody	Tumor necrosis factor alpha (TNF-alpha), also known as TNF, TNFA or TNFSF2, is the prototypic cytokine of the TNF superfamily, and is a multifunctional molecule involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Two receptors, TNF-R1 (TNF receptor type 1; CD120a; p55/60) and TNF-R2 (TNF receptor type 2; CD120b; p75/80), bind to TNF-alpha. TNF-alpha protein is produced mainly by macrophages, and large amounts of this cytokine are released in response to lipopolysaccharide, other bacterial products, and Interleukin-1 (IL-1). TNF-alpha is involved in fighting against the tumorigenesis, thus, is regarded as a molecular insight in cancer treatment.TNF-alpha Protein & Antibody
Product References and Citations for anti-TNF antibody	Hector J, et al. (2007) TNF-alpha alters visfatin and adiponectin levels in human fat. Horm Metab Res. 39(4): 250-5. Berthold-Losleben M, et al. (2008) The TNF-alpha System: Functional Aspects in Depression, Narcolepsy and Psychopharmacology. Curr Neuropharmacol. 6(3): 193-202.
Other Notes	Small volumes of anti-TNF antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TNF purchase	MBS8103323 is an antibody targeting TNF. Also known as Recombinant Anti-TNF-alpha Antibody (PE), Rabbit Monoclonal. Reactive in Human. Host: Rabbit.



Flow Cytometry (FC/FACS) of anti-TNF antibody
Flow cytometric analysis of Human TNF-alpha expression on human peripheral blood lymphocytes. Human peripheral blood mononulcear cells were stimulated for 4-6 hours with PMA and Ionomycin in the presence of GolgiPlug. The cells were treated according to manufacturer's manual (BD Pharmingen'), stained with PE-conjugated anti-Human TNF-alpha and FITC-conjugated anti-Human CD3. The dot plots were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TNF. It may not necessarily be applicable to this product.

NCBI GI #	25952111
NCBI GeneID	7124
NCBI Accession #	NP_000585.2
UniProt Primary Accession #	P01375
UniProt Secondary Accession #	O43647; Q9P1Q2; Q9UIV3
UniProt Related Accession #	P01375
GenBank Nucleotide #	NM_000594.3
NCBI Official Full Name	tumor necrosis factor
NCBI Official Synonym Full Names	tumor necrosis factor
NCBI Official Symbol	TNF
NCBI Official Synonym Symbols	DIF; TNFA; TNFSF2; TNF-alpha
UniProt Protein Name	Tumor necrosis factor
UniProt Synonym Protein Names	Cachectin; TNF-alpha; Tumor necrosis factor ligand superfamily member 2; TNF-aCleaved into the following 6 chains:Tumor necrosis factor, membrane form; Alternative name(s):; N-terminal fragment
Protein Family	Tumor necrosis factor

UniProt Gene Name	TNF
UniProt Synonym Gene Names	TNFA; TNFSF2; TNF-a; NTF; ICD1; ICD2
UniProt Entry Name	TNFA_HUMAN
NCBI Protein Information	tumor necrosis factor; TNF-a; cachectin; APC1 protein; TNF, monocyte-derived; TNF, macrophage-derived; tumor necrosis factor-alpha; tumor necrosis factor ligand superfamily member 2
NCBI Summary for TNF	This gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. Knockout studies in mice also suggested the neuroprotective function of this cytokine. [provided by RefSeq, Jul 2008]

UniProt Comments for TNF	TNF-a: Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can induce cell death of certain tumor cell lines. It is potent pyrogen causing fever by direct action or by stimulation of interleukin-1 secretion and is implicated in the induction of cachexia, Under certain conditions it can stimulate cell proliferation and induce cell differentiation. Homotrimer. Interacts with SPPL2B. Belongs to the tumor necrosis factor family. Protein type: Cytokine; Membrane protein, integral; Motility/polarity/chemotaxis; Apoptosis Chromosomal Location of Human Ortholog: 6p21.3 Cellular Component: extracellular space; recycling endosome; cell surface; integral to plasma membrane; plasma membrane; extracellular region; phagocytic cup; lipid raft; external side of plasma membrane Molecular Function: identical protein binding; protein binding; protease binding; cytokine activity; tumor necrosis factor receptor binding Biological Process: positive regulation of JNK activity; extracellular matrix organization and biogenesis; positive regulation of nitric oxide biosynthetic process; positive regulation of NFAT protein import into nucleus; activation of MAPK activity; positive regulation of osteoclast differentiation; positive regulation of apoptosis; positive regulation of transcription, DNA-dependent; response to glucocorticoid stimulus; positive regulation of caspase activity; positive regulation of NF-kappaB import into nucleus; osteoclast differentiation; positive regulation of translational initiation by iron; positive regulation of membrane protein ectodomain proteolysis; activation of NF-kappaB transcription factor; positive regulation of MAP kinase activity; tumor necrosis factor-mediated signaling pathway; positive regulation of phagocytosis; negative regulation of interleukin-6 production; JNK cascade; negative regulation of osteoblast differentiation; positive regulation of action potential; embryonic gut development; regulation of immunoglobulin secretion; negative regulation of protein complex disassembly; response to drug; positive regulation of cytokine production; positive regulation of heterotypic cell-cell adhesion; positive regulation of I-kappaB kinase/NF-kappaB cascade; positive regulation of mitosis; response to virus; positive regulation of interleukin-8 biosynthetic process; glucose metabolic process; positive regulation of interleukin-6 production; negative regulation of fat cell differentiation; positive regulation of chemokine production; negative regulation of cytokine secretion during immune response; positive regulation of protein transport; cell activation; detection of mechanical stimulus involved in sensory perception of pain; defense response to Gram-positive bacterium; DNA damage response, signal transduction resulting in induction of apoptosis; induction of apoptosis via death domain receptors; positive regulation of transcription factor activity; positive regulation of transcription from RNA polymerase II promoter; response to activity; negative regulation of L-glutamate transport; negative regulation of transcription, DNA-dependent; skeletal muscle contraction; sequestering of triacylglycerol; positive regulation of smooth muscle cell proliferation; negative regulation of transcription from RNA polymerase II promoter; positive regulation of interleukin-18 production; chronic inflammatory response to antigenic stimulus; positive regulation of synaptic transmission; response to salt stress; positive regulation of hair follicle development; negative regulation of cell proliferation; response to radiation; negative regulation of lipid catabolic process; positive regulation of neuron apoptosis; lipopolysaccharide-mediated signaling pathway; protein kinase B signaling cascade; positive regulation of chronic inflammatory response to antigenic stimulus; regulation of I-kappaB kinase/NF-kappaB cascade; inflammatory response; caspase activation; positive regulation of humoral immune response mediated by circulating immunoglobulin; positive regulation of protein complex disassembly; transformed cell apoptosis; calcium-mediated signaling; MAPKKK cascade; positive regulation of peptidyl-serine phosphorylation; humoral immune response; positive regulation of protein kinase B signaling cascade; positive regulation of programmed cell death; positive regulation of interferon-gamma production; negative regulation of glucose import; positive regulation of protein complex assembly; positive regulation of chemokine biosynthetic process; negative regulation of viral genome replication; protein import into nucleus, translocation; positive regulation of protein kinase activity; activation of MAPKKK activity; response to hypoxia; positive regulation of fever; receptor biosynthetic process; positive regulation of protein amino acid phosphorylation; leukocyte tethering or rolling; negative regulation of myoblast differentiation; regulation of insulin secretion; positive regulation of cytokine secretion Disease: Asthma, Susceptibility To; Migraine With Or Without Aura, Susceptibility To, 1; Malaria, Susceptibility To
Research Articles on TNF	**1.** The TNF-alpha-mediated in vitro RPE cell migration mainly requires Akt/mTORC1, but not mTORC2 signaling. The results of this study may lead to indentify novel signaling targets against PVR.
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