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Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody
Recombinant Rabbit Monoclonal Antibody
Catalog # AH13544

Specification

Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody - Product Information

Application	**IHC-P, IF, FC**
Primary Accession	P01375
Other Accession	241570
Reactivity	**Human, Rat**
Host	**Rabbit**
Clonality	**Monoclonal**
Isotype	**Rabbit / IgG, kappa**
Calculated MW	**25644**

Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody - Additional Information

Gene ID 7124

Other Names
APC1, Cachectin, Differentiation inducing factor (DIF), Macrophage cytotoxic factor (MCF), Necrosin, TNF alpha, TNF Macrophage Derived, TNF Monocyte Derived, TNF Superfamily Member 2, TNFA, TNFSF2, Tumor necrosis factor ligand superfamily member 2, Tumor Necrosis Factor Precursor

Application Note
IHC-P~~N/A<br \>IF~~1:50~200<br \>FC~~1:10~50

Format
200ug/ml of Ab purified. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody - Protein Information

Name TNF

Synonyms TNFA, TNFSF2

Function
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. Impairs regulatory T- cells (Treg) function in individuals with rheumatoid arthritis via FOXP3 dephosphorylation. Up-regulates the expression of protein phosphatase 1 (PP1), which dephosphorylates the key 'Ser-418' residue of FOXP3, thereby inactivating FOXP3 and rendering Treg cells functionally defective (PubMed:23396208). Key mediator of cell death in the anticancer action of BCG-stimulated neutrophils in combination with DIABLO/SMAC mimetic in the RT4v6 bladder cancer cell line (PubMed:16829952, PubMed:22517918, PubMed:23396208). Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adipocytes which is partially responsible for TNF-induced insulin resistance (By similarity). Plays a role in angiogenesis by inducing VEGF production synergistically with IL1B and IL6 (PubMed:12794819). Promotes osteoclastogenesis and therefore mediates bone resorption (By similarity).

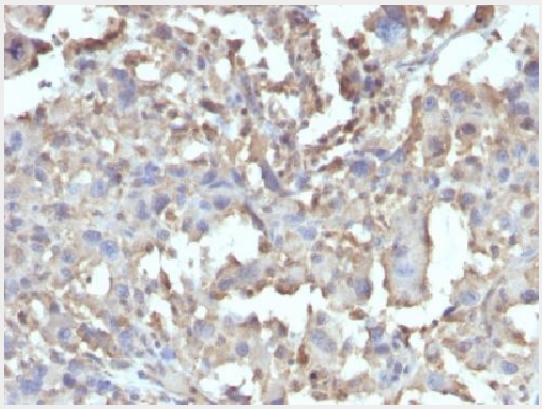
Cellular Location
Cell membrane; Single-pass type II membrane protein [Tumor necrosis factor, soluble form]: Secreted [C-domain 2]: Secreted.

Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody - Images



Formalin-fixed, paraffin-embedded Human Histiocytoma stained with TNF-alpha Recombinant Rabbit Monoclonal Antibody (TNF/1500R).

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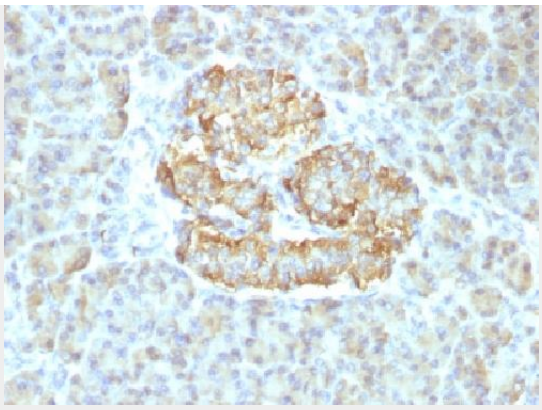

Formalin-fixed, paraffin-embedded Human Pancreas stained with TNF-alpha Recombinant Rabbit Monoclonal Antibody (TNF/1500R).

Anti-TNF-alpha (Tumor Necrosis Factor alpha) Antibody - Background

This MAb recognizes human 17-26kDa protein, which is identified as cytokine TNF-alpha (Tumor Necrosis Factor-alpha). TNF-alpha can be expressed as a 17kDa free molecule, or as a 26kDa membrane protein. TNF-alpha is a protein secreted by lipopolysaccharide-stimulated macrophages, and causes tumor necrosis when injected into tumor bearing mice. TNF alpha causes cytolysis of certain transformed cells, being synergistic with interferon gamma in its cytotoxicity. Although it has little effect on many cultured normal human cells, TNF alpha appears to be directly toxic to vascular endothelial cells. Other actions of TNF alpha include stimulating growth of human fibroblasts and other cell lines, activating polymorphonuclear neutrophils and osteoclasts, and induction of interleukin 1, prostaglandin E2 and collagenase production. TNF alpha is currently being evaluated in treatment of certain cancers and AIDS Related Complex.