

### TNF-alpha Antibody

Purified Rabbit Polyclonal Antibody Catalog # ABV11493

### Specification

# TNF-alpha Antibody - Product Information

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality
Isotype
Calculated MW

### **TNF-alpha Antibody - Additional Information**

Gene ID 7124

**Other Names** TNF, TNFSF2, cachectin, DIF, TNFA, TNF-alpha

Target/Specificity TNF-a

**Formulation** 100  $\mu$ g (0.5 mg/ml) affinity purified rabbit anti-human TNF- $\alpha$  polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA and 0.01% thimerosal.

WB P01375 AAA61198 Human Rabbit Polyclonal Rabbit IgG 25644

Handling The antibody solution should be gently mixed before use.

**Background Descriptions** 

**Precautions** TNF-alpha Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### **TNF-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:<a href="http://www.uniprot.org/citations/23396208" target=" blank">23396208</a>). 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:<a href="http://www.uniprot.org/citations/16829952" target=" blank">16829952</a>, PubMed:<a href="http://www.uniprot.org/citations/22517918" target=" blank">22517918</a>, PubMed:<a href="http://www.uniprot.org/citations/23396208" target=" blank">23396208</a>). Induces insulin resistance in adipocytes via inhibition of insulin-induced IRS1 tyrosine phosphorylation and insulin-induced glucose uptake. Induces GKAP42 protein degradation in adjpocytes 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: <a href="http://www.uniprot.org/citations/12794819" target=" blank">12794819</a>). 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.

### TNF-alpha Antibody - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>
- **TNF-alpha Antibody Images**





# TNF-alpha Antibody - Background

Tumor Necrosis Factor  $\alpha$  (TNF- $\alpha$ ) is a potent lymphoid factor that exerts cytotoxic effects on a wide range of tumor cells and certain other target cells. Human TNF- $\alpha$  is a 17.4 kDa protein containing 157 amino acid residues.