

**Anti-TNF alpha (Humicade), Human IgG4 Antibody**  
**Catalog # ABV11787****Specification**

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**Anti-TNF alpha (Humicade), Human IgG4 Antibody - Product Information**

Application	E
Primary Accession	<a href="#">P01375</a>
Reactivity	Human
Host	Recombinant
Clonality	Monoclonal
Isotype	Human IgG4, kappa
Calculated MW	25644

**Anti-TNF alpha (Humicade), Human IgG4 Antibody - Additional Information****Gene ID** 7124Alias Symbol **TNF****Other Names**

Tumor necrosis factor superfamily member 2, TNFSF2, TNFA

**Appearance**

Colorless liquid

**Formulation**

200 µg affinity purified human antibody in phosphate-buffered saline (PBS) containing 0.02% Proclin 300

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

Anti-TNF alpha (Humicade), Human IgG4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Anti-TNF alpha (Humicade), Human IgG4 Antibody - Protein Information****Name** TNF**Synonyms** TNFA, TNFSF2**Function**

Cytokine that binds to TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. 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 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:<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.

### **Anti-TNF alpha (Humicade), Human IgG4 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 Cytometry](#)
- [Cell Culture](#)

### **Anti-TNF alpha (Humicade), Human IgG4 Antibody - Images**

### **Anti-TNF alpha (Humicade), Human IgG4 Antibody - Background**

The antibody binds specifically to TNF-alpha, a pro-inflammatory cytokine which stimulates release of other cytokines e.g. IL-1, IL-6 and GM-CSF as well as secretion of ICAM-1 and VCAM-1 from endothelial cells. It stimulates acute phase responses and acts as a chemoattractant for NK cells and monocytes/macrophages. The antibody reached Phase II clinical trials with Celltech, UCB.