

Anti-TNF alpha (Infliximab), Human IgG1 Antibody

Catalog # ABV11791

Product Information

Application FC, E **Primary Accession** P01375 Reactivity Human Host Recombinant Clonality Monoclonal Isotype Human IgG1, kappa

Calculated MW 25644

Additional Information

7124 Gene ID

Alias Symbol TNF

Other Names TNF-α; TNFα; TNFSF; Tumor necrosis factor; Cachectin; TNF-alpha; Tumor

necrosis factor ligand superfamily member 2; TNF-a; TNFa

Appearance Colorless liquid

Formulation 200 g affinity purified human antibody in phosphate-buffered saline (PBS)

containing 0.02% Proclin 300

-20 °C **Reconstitution & Storage**

Background Descriptions

Precautions Anti-TNF alpha (Infliximab), Human IgG1 Antibody is for research use only

and not for use in diagnostic or therapeutic procedures.

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: <u>23396208</u>). 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.

Background

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. Upregulates 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.