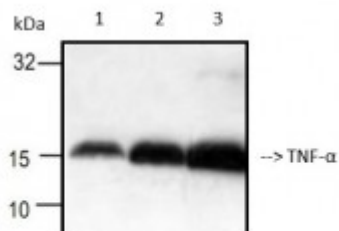


## Anti-TNF-alpha antibody



Western Blot (WB) analysis of Jurkat cell lysate using TNF- $\alpha$  antibody (STJ96054) for different dilutions: 1) 1:3000, 2) 1:2000, 3) 1:1000.



### Description

TNF-alpha is a protein encoded by the TNF gene which is approximately 25,6 kDa. TNF-alpha is localised to the cell membrane. It is involved in PEDF induced signalling, TNFR1 pathway, allograft rejection and apoptosis modulation and signalling. It is a cytokine that is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, lipid metabolism, and coagulation. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. TNF-alpha is expressed in the blood, lung, spleen, liver and heart. Mutations in the TNF gene may result in psoriatic arthritis. STJ96054 was affinity purified. This polyclonal antibody binds to endogenous TNF-alpha.

|                         |                                                                               |
|-------------------------|-------------------------------------------------------------------------------|
| <b>Model</b>            | STJ96054                                                                      |
| <b>Host</b>             | Rabbit                                                                        |
| <b>Reactivity</b>       | Human, Mouse, Rat                                                             |
| <b>Applications</b>     | ELISA, IF                                                                     |
| <b>Immunogen</b>        | Synthesized peptide derived from human TNF-alpha                              |
| <b>Immunogen Region</b> | 110-190 aa, Internal                                                          |
| <b>Gene ID</b>          | <a href="#">7124</a>                                                          |
| <b>Gene Symbol</b>      | <a href="#">TNF</a>                                                           |
| <b>Dilution range</b>   | IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000                                   |
| <b>Specificity</b>      | TNF-alpha Polyclonal Antibody detects endogenous levels of TNF-alpha protein. |
| <b>Purification</b>     | The antibody was affinity-purified from rabbit antiserum by affinity-         |

chromatography using epitope-specific immunogen.

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Note</b>                             | For Research Use Only (RUO).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Protein Name</b>                     | Tumor necrosis factor Cachectin TNF-alpha Tumor necrosis factor ligand superfamily member 2 TNF-a Tumor necrosis factor, membrane form N-terminal fragment NTF Intracellular domain 1 ICD1 Intracel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Molecular Weight</b>                 | 16 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Clonality</b>                        | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Conjugation</b>                      | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Isotype</b>                          | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Formulation</b>                      | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Concentration</b>                    | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Storage Instruction</b>              | Store at -20°C, and avoid repeat freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Database Links</b>                   | <a href="#">HGNC:11892</a> <a href="#">OMIM:191160</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Alternative Names</b>                | Tumor necrosis factor Cachectin TNF-alpha Tumor necrosis factor ligand superfamily member 2 TNF-a Tumor necrosis factor, membrane form N-terminal fragment NTF Intracellular domain 1 ICD1 Intracel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Function</b>                         | 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. 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 . 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 . The TNF intracellular domain (ICD) form induces IL12 production in dendritic cells. |
| <b>Cellular Localization</b>            | Cell membrane Tumor necrosis factor, membrane form: Membrane. Single-pass type II membrane protein.. Tumor necrosis factor, soluble form: Secreted.. C-domain 1: Secreted.. C-domain 2: Secreted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Post-translational Modifications</b> | The soluble form derives from the membrane form by proteolytic processing. The membrane-bound form is further proteolytically processed by SPPL2A or SPPL2B through regulated intramembrane proteolysis producing TNF intracellular domains (ICD1 and ICD2) released in the cytosol and TNF C-domain 1 and C-domain 2 secreted into the extracellular space. The membrane form, but not the soluble form, is phosphorylated on serine residues. Dephosphorylation of the membrane form occurs by binding to soluble TNFRSF1A/TNFR1. O-glycosylated; glycans contain galactose, N-acetylgalactosamine and N-acetylneuraminic acid.                                                                                                                                                                                                                                                                                                                                             |