

# Anti-TNF alpha Antibody [PS01-07]

HA722022



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse
<b>Applications:</b>	WB
<b>Molecular Wt:</b>	Predicted band size: 26 kDa
<b>Clone number:</b>	PS01-07

**Description:** 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. 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. 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. Plays a role in angiogenesis by inducing VEGF production synergistically with IL1B and IL6.

**Immunogen:** Recombinant protein within full length protein.

**Positive control:** THP-1 treated with 500ng/mL LPS for 24 hours then add 300ng/mL BFA for 20 hours cell lysate, RAW264.7 treated with 100ng/mL LPS for 7 hours add 300ng/mL BFA for 3 hours cell lysate.

**Subcellular location:** Cell membrane, Secreted.

**Database links:** SwissProt: P01375 Human | P06804 Mouse

**Recommended Dilutions:**

**WB** 1:1,000

**Storage Buffer:** PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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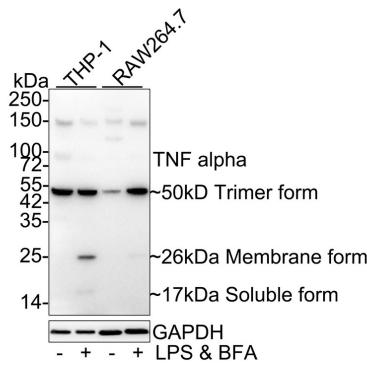
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## Images



**Fig1:** Western blot analysis of TNF alpha on different lysates with Rabbit anti-TNF alpha antibody (HA722022) at 1/1,000 dilution.

Lane 1: THP-1 cell lysate

Lane 2: THP-1 treated with 500ng/mL LPS for 24 hours then add 300ng/mL BFA for 20 hours cell lysate

Lane 3: RAW264.7 cell lysate

Lane 4: RAW264.7 treated with 100ng/mL LPS for 7 hours, add 300ng/mL BFA for 3 hours cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 26 kDa

Observed band size: 26/50/17 kDa

Exposure time: 1 minute;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722022) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Nie H., Zheng Y., Li R., Guo T.B., He D., Fang L., Liu X., Xiao L., Chen X., Wan B., Chin Y.E., Zhang J.Z. Phosphorylation of FOXP3 controls regulatory T cell function and is inhibited by TNF-alpha in rheumatoid arthritis. *Nat. Med.* 19:322-328 (2013)
2. Jinesh G.G., Chunduru S., Kamat A.M. Smac mimetic enables the anticancer action of BCG-stimulated neutrophils through TNF-alpha but not through TRAIL and FasL. *J. Leukoc. Biol.* 92:233-244 (2012)

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