Biotin Conjugated Anti-Human TNF alpha Antibody [PS01-07] - Detector

HA721559

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	ELISA(Det)
Molecular Wt:	Predicted band size: 26 kDa
Clone number:	PS01-07

Description: 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. 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.

Conjugate:	Biotin-conjugated
Immunogen:	Recombinant protein within full length protein (HA210760).
Positive control:	Recombinant TNF-alpha protein (HA210760).
Subcellular location:	Cell membrane, Secreted.
Database links:	SwissProt: P01375 Human
Recommended Dilutions:	
ELISA(Det)	Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PS00-40] to TNF alpha (Capture) (HA721265).
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% ProClin300.
Storage Instruction:	Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

Images

Fig1: Advantages of Using rAbs：
Increased Reproducibility
Because recombinant antibody production involves sequencing the antibody light and heavy chains, recombinant antibody production allows researchers more control over the antigen.
Ease of Scalability and Continuous Supply
In vitro methods for producing antibodies are amenable to large-scale production, meaning antibody availability is unlikely to become a limiting factor. Recombinant antibodies can be produced in weeks as opposed to months.
Animal-Free Tech
Once the antibody-producing genes are isolated, high-throughput in vitro manufacture can be implemented. This eliminates the numerous ethical and animal welfare concerns commonly associated with traditional monoclonal antibody production.

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)