



# ANOGEN - A Division of YES Biotech Laboratories Ltd.

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## Mouse Anti-Human TNF- $\alpha$ Monoclonal Antibody Datasheet

**Product Name:** mAb anti-Human TNF- $\alpha$

**Clone No.:** CH8820

**Catalogue No.:** MO-C40003B

**Quantity:** 0.5 mg/vial

**Description:** Mouse monoclonal antibody to human Tumor Necrosis Factor alpha (TNF- $\alpha$ )

**Purification:** Protein G affinity purified

**Product Type:** Primary antibody, **capture** Antibody in matched antibody pair.

**Target Protein:** Human TNF- $\alpha$

**Immunogen:** Purified recombinant human TNF- $\alpha$

**Fusion Myeloma:** Sp2/0-Ag14

**Specificity:** This antibody recognizes both natural and recombinant human TNF- $\alpha$ .

**Species Reactivity:** Human, other species not tested

**Host / Isotype:** Mouse, IgG1 Kappa

**Formulation:** Lyophilized from a solution in 0.01M PBS, pH 7.0

**Reconstitution:** Double distilled water is recommended to adjust the final concentration to 1.00mg/mL.

**Storage:** Store at -20°C

**Research Area:** Cytokine, inflammation

**Background:** Tumor Necrosis Factor-alpha (TNF- $\alpha$ ) is a multifunctional pro-inflammatory cytokine, mainly secreted by activated macrophages. It is implicated with a variety of biological procedures including systemic inflammation, cell proliferation, apoptosis, lipid metabolism, and coagulation. The pleiotropic attribute of TNF- $\alpha$  regulation is associated with its ability to trigger multiple signalling pathways through its

receptors, TNFR1 (p55) and TNFR2 (p75).

TNF- $\alpha$  not only contributes to the immune response to bacterial, fungal, viral and parasitic invasions, but also functions in tissue remodelling, autoimmune-diseases and the necrosis of specific tumors. TNF- $\alpha$  hyper-expression in response to some bacterial components such as LPS can cause life threatening septic shock. Recombinant TNF- $\alpha$ , in combination with chemotherapy, has been applied for treatment of soft sarcomas, melanomas and other irresectable tumors. Anti-TNF- $\alpha$  therapy has been used for treatment of rheumatoid arthritis.

**Applications:**

**ELISA:** When mAb clone B1E4 (Cat. No.: MO-C40003D) is used as detection antibody, clone CH8820 can be used as a capture antibody in sandwich ELISA for human TNF- $\alpha$  detection. Clone B1E4 derived tracer antibodies (Anogen Cat. No.: MO-C40003T & MO-C40003TB) can be found in the “Matched Antibody Pairs” category.

**Neutralizing:** This antibody can neutralize TNF- $\alpha$  activity in vitro. It is suggested to use 2-5ng of recombinant TNF- $\alpha$  per  $\mu$ g of mAb.

**IHC:** The antibody can react with formalin-fixed paraffin-embedded tissues. It showed strong reaction with normal kidney, liver with cirrhosis, and normal lung samples, and positive reaction with lung cancer samples at 10 $\mu$ g/mL antibody concentration.

**References:**

If research is published using this product, please inform Anogen in order to cite the reference on this datasheet. Anogen will provide one unit of product in the same category as gratitude.

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