

# Human TNF- $\alpha$ (Adalimumab) Antibody

## Fc Muted™ Biotin

### Biosimilar Recombinant Human Monoclonal Antibody

#### Product Information

**Product No.:** LT106  
**Clone:** D2E7  
**RRID:** AB\_2893885  
**Isotype:** Human IgG1 $\kappa$   
**Storage:** Sterile 2-8°C

#### Product Description

##### Specificity:

This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Adalimumab. Clone D2E7 binds to soluble TNF- $\alpha$ , but not to TNF- $\beta$  (lymphotoxin). This product is for research use only.

##### Antigen Distribution:

TNF- $\alpha$  is secreted by macrophages, monocytes, neutrophils, T cells, B cells, NK cells, LAK cells.

##### Background:

Adalimumab is a research-grade monoclonal antibody that works by inactivating tumor necrosis factor-alpha (TNF- $\alpha$ ). TNF- $\alpha$  is a 17.5 kD protein that mediates inflammation and immunity caused by the invasion of viruses, bacteria, and parasites by initiating a cascade of cytokines that increase vascular permeability, thus bringing macrophages and neutrophils to the site of infection. TNF- $\alpha$  secreted by the macrophage causes the blood to clot which provides containment of the infection. TNF- $\alpha$  inactivation has proven to be important in downregulating the inflammatory reactions associated with autoimmune diseases such as rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, Crohn's disease, moderate to severe chronic psoriasis, and juvenile idiopathic arthritis. Adalimumab blocks the interaction with the p55 and p75 cell surface TNF receptors thus, neutralizing the biological function of TNF. Anti-Human TNF alpha (Adalimumab) utilizes the same variable regions from the therapeutic antibody Adalimumab making it ideal for research projects.

##### Known Reactivity Species:

Human

##### Expression Host:

HEK-293 Cells

##### Format:

Biotin

##### Immunogen:

Human TNF- $\alpha$

##### Formulation

This Biotinylated antibody is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.

##### Storage and Stability

This biotinylated antibody is stable when stored at 2-8°C. **Do not freeze.**

## Applications

### Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for Adalimumab biosimilar antibody for staining cells in flow cytometry is  $\leq 1.0 \mu\text{g}$  per  $10^6$  cells in a volume of 100  $\mu\text{l}$ . Titration of the reagent is recommended for optimal performance for each application.

### Other Applications Reported in Literature:

ELISA

FA

## Country of Origin

USA

## References

1. Omidinia, E. *et al.* (2019) *Protein Expr Purif.* 155:59-65.