

# Human TNF Adalimumab Antibody

## Purified No Carrier Protein

### Biosimilar Recombinant Human Monoclonal Antibody

#### Product Information

**Product No.:** LT100  
**Clone:** D2E7  
**RRID:** AB\_2893873  
**Isotype:** Human IgG1k  
**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:

Purified No Carrier Protein

##### Immunogen:

Human TNF alpha

#### Formulation

This biosimilar antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

#### Purity

≥98% monomer by analytical SEC, >95% by SDS Page

#### Endotoxin

< 1.0 EU/mg as determined by the LAL method

## Storage and Stability

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at  $\leq -70^{\circ}\text{C}$ . Avoid Repeated Freeze Thaw Cycles.

## Product Preparation

Recombinant biosimilar antibodies are manufactured in an animal free facility using only *in vitro* protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

## Pathogen Testing

To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of Leinco's recombinant biosimilar antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

## Applications

Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for Adalimumab biosimilar antibody for staining cells in flow cytometry is  $\leq 0.25 \mu\text{g}$  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:

N  
B  
ELISA  
FA  
IF  
IP  
IHC

## Country of Origin

USA

## References

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