

Anti-TNF α , AlpHcAbs[®] Human antibody

Summary

Code	300-515-001
Immunogen	Recombinant human TNF α
Host	Alpaca pacous
Isotype	VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc(mutation)
Conjugate	Unconjugated
Specificity	Human TNF α
Cross-Reactivity	Cross-reactivity with cynomolgus TNF α
Purity	Recombinant Expression and Affinity purified
Concentration	1mg/ml
Formation	Liquid, 10mM PBS (pH 7.5), 0.05% sucrose, 0.1% trehalose, 0.01% proclin300, 50% Glycerol
Storage	Store at -20 °C, (Avoid freeze / thaw cycles), Stable for 12 months at -20°C

Description

Anti-TNF α , AlpHcAbs[®] Human antibody is designed for detecting human TNF α specifically. Anti-TNF α , AlpHcAbs[®] Human antibody is recombinant VHH domain of alpaca IgG2b/2c fused to Human IgG1 Fc. Based on ELISA, Anti-TNF α , AlpHcAbs[®] Human antibody reacts with human TNF α , and has reactivity with cynomolgus TNF α .

Background

TNF alpha is a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor (TNF) superfamily. This cytokine is mainly secreted by macrophage and bind to its receptors, TNFRSF1A/TNFR1 and TNFRSF1B/TNFR. TNF alpha is involved in the regulation of immune cells, cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. TNF alpha exists as a multimer of two, three, or five noncovalently linked units, but shows a single 17 kDa band following SDS-PAGE under non-reducing conditions. Knockout studies in mice also suggested the neuroprotective function of TNF alpha, and has been observed to causes tumor necrosis when injected into tumor-bearing mice. Other functions of TNF-alpha include its role in the immune response to bacterial, viral, parasitic and certain fungal infections, as well as its role in the necrosis of specific tumors. TNF alpha causes cytolysis or cytostasis of certain transformed cells, being synergistic with interferon-gamma in its cytotoxicity. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer.

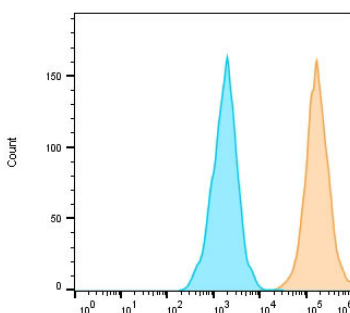
Benefits

- High lot-to-lot consistency
- Increased sensitivity and higher affinity
- Animal-free production

Suggested Working Concentration

ELISA	1:4,000-1:10000
Flow Cytometry	1:200-1:1000

Dilution factors are presented in the form of a range because the optimal dilution is a function of many factors, such as antigen density, permeability, etc. The actual dilution used must be determined empirically.



Flow cytometric analysis of TNF α -overexpressed HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) labeling TNF α with 300-515-001 at 1:10000 dilution(yellow) compared with Human IgG1-Isotype control(green). Anti-Human IgG(H+L),HcAbs[®] Goat antibody(FITC)(023-403-006), at 1/1000 dilution was used as the secondary antibody.

This product is for research use only and is not approved for use in humans or in clinical