Product Datasheet
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Human TNF-α (Infliximab) Antibody

Biosimilar Recombinant Human Monoclonal Antibody

Product Information

Product No.: T770
Clone: ABP-710
Isotype: Human IgG1κ
Storage: Sterile 2 to 8°C

Product Description

Specificity:
This non-therapeutic biosimilar antibody uses the same variable region sequence asthe therapeutic antibody Infliximab. This product is research use only. ABP-710 is an infliximab biosimilar targeting tumornecrosis factor alpha (TNFα). ABP-710 binding and effector functions are similar to infliximabin vitro. ABP-710 binds to both soluble and membrane-bound TNFα.

Antigen Distribution:
TNFα is secreted by macrophages, monocytes, neutrophils, T cells, B cells, NK cells, and LAK cells.

Background:
TNFα 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. TNFα secreted by macrophages cause the blood to clot which provides containment of an infection. TNFα is also associated with autoimmune diseases and its inactivation is important in downregulating inflammatory reactions associated with rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis, Crohn's disease, moderate to severe chronic psoriasis, and juvenile idiopathic arthritis.

Infliximab is used in the clinical setting to treat immune-mediated inflammatory disorders and is a particularly efficacious treatment for inflammatory bowel disease1. Infliximab, and its biosimilar ABP-710, suppresses inflammation primarily by binding and neutralizing sTNFα2.

ABP-710 and infliximab are analytically similar regarding amino acid sequence, primary peptide structure, secondary structure, tertiary structure, conformation, thermal stability, and glycan mapping1,2.

ABP-710 and infliximab biological functions are also similar2. Like infliximab, ABP-710 inhibits sTNFα-induced apoptosis and mediates effector functions such as antibody-dependent cell-mediated cytotoxicity, antibody-dependent cellular phagocytosis, and complement-dependent cytotoxicity when interacting with membrane bound TNFα.

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

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 ≤ -70°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.

Other Applications Reported in Literature:
Agonist,
Antagonist,
ELISA,
FA,
FC,
N

Country of Origin
USA

References
1) Reinisch W, Cohen S, Ramchandani M, et al. Adv Ther. 39(1):44-57. 2022.
2) Saleem R, Cantin G, Wikström M, et al. Pharm Res. 37:114. 2020
3) Genovese MC, Sanchez-Burson J, Oh M, et al. Arthritis Res Ther. 22(1):60. 2020.
4) Chow V, Oh M, Gessner MA, et al. Clin Pharmacol Drug Dev. 9(2):246-255. 2020.
5) Lee YH, Song GG. Z Rheumatol. 82(2):114-122. English. 2023.

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