

Human CTLA-4 (Ipilimumab) Antibody

Biosimilar Recombinant Human Monoclonal Antibody

Product Information

Product No.: LT1605

Clone: MDX-010

RRID: AB_2893922

Isotype: Human IgG1κ

Storage: Sterile 2° to 8°C

Product Description

Specificity:

This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Ipilimumab. Ipilimumab binds to Human CTLA-4. This product is for research use only.

Antigen Distribution:

CTLA4 is constitutively expressed in regulatory T cells.

Background:

Cytotoxic T-lymphocyte-associated antigen 4 (CTLA-4) is a protein receptor that serves as an immune checkpoint and down-regulates the immune system. CTLA-4 is constitutively expressed in regulatory T cells but is only upregulated in conventional T cells following activation. Many cancers, including Melanoma, are associated with CTLA-4 upregulation because the body's ability to recognize and destroy cancer cells is hampered by an inhibitory mechanism. Ipilimumab targets CTLA-4 and works by turning off this inhibitory mechanism and, thus, enhances the body's own immune response against cancer cells.² Emerging research suggests that combined blockade of PD-1 and CTLA-4, with Nivolumab and Ipilimumab respectively, could produce greater antitumor activity than blockade of either pathway alone.¹ This cost-effective, research-grade Anti-Human CTLA-4 (Ipilimumab) utilizes the same variable regions from the therapeutic antibody Ipilimumab making it ideal for research projects.

Known Reactivity Species:

Human

Expression Host:

HEK-293 Cells

Format:

Purified No Carrier Protein

Immunogen:

Human CTLA-4

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.

Applications

Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for Ipilimumab biosimilar antibody for staining cells in flow cytometry is ≤ 0.25 µg per 106 cells in a volume of 100 µl. Titration of the reagent is recommended for optimal performance for each application.

Other Applications Reported in Literature:

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ELISA

CyTOF®

Country of Origin

USA

References

- 1) Wolchok, JD. et al. (2013) N Engl J Med 369(2):122-33.
- 2) Soo, RA. et al. (2017) Lancet Oncol. 18(12):e731-e741.
- 3) Lipson, EJ. and Drake, CG. (2011) Clin Cancer Res 17(22):6958-62.