Leinco Technologies, Inc.
excellence in early discovery research™

Anti-Human IL-17 (Bimekizumab) (CHO Expressed)

Biosimilar Recombinant Human Monoclonal Antibody

Product Information

Product No.:	I-2130
Clone:	UCB4940
Isotype:	Human IgG1κ

Product Description

Specificity:
This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Bimekizumab. UCB4940 (Bimekizumab) is a dual inhibitor of IL-17A and IL-17F interleukins.

Antigen Distribution:
Th17 cells, which are CD4 + T-helper cells, are the principal source of IL- 17. Tc17 cells, which are CD8 + cells, also make IL-17. Additionally, IL-17 is produced by a number of innate immune subsets (γδ-T cells, some natural killer T (NKT) cells, TCRβ+ 'natural' Th17 cells, and Type 3 "innate lymphoid cells" (ILC3)) and possibly by myeloid cells in small amounts.

Background:
Interleukin 17 (IL-17) is a pro-inflammatory cytokine crucial to host defense, tissue repair, pathogenesis of inflammatory disease, and progression of cancer[1]. IL-17 signaling is also critical for protection against fungal and bacterial infection[2]. There are six pro-inflammatory cytokines (IL-17A-F) produced by Th17 cells[3]. IL-17A and IL-17F share ~50% structural homology[4] as well as overlapping biological functions in chronic inflammation and adaptive immune defense from bacterial and fungal infection[5]. Additionally, they are coexpressed in immune- inflammatory diseases[5]. IL-17A and IL-17F drive pathogenesis in psoriasis[5] and are both found in lesional skin and inflamed synovium from patients with psoriatic arthritis[4]. Since dual neutralization of IL-17A and IL-17F results in lower expression of inflammation-linked genes and cytokines 4 and because targeting the IL-17 pathway has clinical efficacy[5], an antibody therapeutic designed to potently and selectively neutralize both IL-17A and IL-17F is desirable.

Bimekizumab is a humanized monoclonoal antibody designed to bind at a similar site on both IL-17A and IL-17F, allowing for dual inhibition[5]. Bimekizumab has been approved for use in the treatment of plaque psoriasis[6], psoriatic arthritis[7], and axial spondyloarthritis[8].

Known Reactivity Species:
Human

Expression Host:
CHO Cells

Format:
Purified No Carrier Protein

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.

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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:

ELISA Cap,
FA

Country of Origin
USA

References
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