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Anti-Human Amyloid-β (Lecanemab) [Clone BAN-2401]

Biosimilar Recombinant Human Monoclonal Antibody

Product Information

Product No.:	A490
Clone:	BAN-2401
Isotype:	Human IgG1κ

Product Description

Specificity:
This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Lecanemab. BAN-2401 selectively binds to large, soluble Aβ protofibrils with high affinity.

Antigen Distribution:
Amyloid-beta (Aβ) circulates in plasma, cerebrospinal fluid (CSF), and brain interstitial fluid (ISF), primarily as soluble Aβ40.

Background:
Amyloid-β (Aβ) is a peptide that accumulates in the brains of individuals with Alzheimer's disease, forming plaques that are a hallmark of the condition. These plaques are believed to contribute to the neurodegenerative processes seen in Alzheimer's by disrupting cell function and triggering inflammatory responses. Amyloid-β is derived from the amyloid precursor protein (APP) through enzymatic cleavage. The aggregation of Aβ into oligomers and fibrils is a key pathological feature of Alzheimer's disease, making it a significant target for therapeutic interventions aimed at reducing or preventing plaque formation[1,2].

Known as clone BAN-2401, Lecanemab is the humanized IgG1 version of the mouse monoclonal antibody mAb158, specifically engineered to selectively bind to large, soluble Aβ protofibrils. BAN-2401 has shown efficacy in reducing Aβ protofibrils in the brain and cerebrospinal fluid (CSF) of animal models. In clinical trials, it has exhibited potential as a disease-modifying treatment for Alzheimer's disease. Additionally, BAN-2401 has been utilized in preclinical research to study its binding to Aβ deposits in postmortem brain sections from individuals with Down's syndrome[3,4].

Known Reactivity Species:
Human

Expression Host:
HEK-293 Cells

Format:
Purified No Carrier Protein

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Immunogen:
Unknown

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 biosimilar 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 -80°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

Country of Origin
USA

References
1. Sevigny J, Chiao P, Bussière T, et al. Nature. 2016;537(7618):50-56.
2. Arndt JW, Qian F, Smith BA, et al. Sci Rep. 2018;8(1):6412.
3. Logovinsky V, Satlin A, Lai R, et al. Alzheimer's Research & Therapy. 2016;8(1):14.
4. https://www.alzforum.org/therapeutics/leqembi

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