Leinco Technologies, Inc.
excellence in early discovery research™

Human CD79b (Polatuzumab) Antibody

Purified No Carrier Protein

Biosimilar Recombinant Human Monoclonal Antibody

Product Information

Product No.:	C1090
Clone:	RG7596
Isotype:	Human IgG1κ
Storage:	Sterile 2-8°C

Product Description

Specificity:
This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Polatuzumab but is not linked to MMAE. This product is for research use only. Polatuzumab antibody activity is directed against CD79b.

Antigen Distribution:
CD79b is expressed on the majority of B cells and is moderately to strongly expressed in a majority of malignant lymphomas, including almost all non-Hodgkin lymphoma.

Background:
CD79 is a covalent heterodimer, composed of CD79a and CD79b, that acts as the signaling component of the B cell receptor (BCR) 1 and is also a tumor associated antigen 2. CD79 together with surface Ig forms the BCR complex, and cross-linking of BCR triggers downstream signaling that can lead either to apoptosis or, when rescue signals from T cells are present, cell activation 1. Cross-linked BCR is internalized and targeted by a lysosome-like compartment, the major histocompatibility complex class II positive compartment, making CD79b a target antigen for antibody drug conjugates (ADC) against cancerous B cells 1.

Polatuzumab is an ADC composed of an antibody directed against CD79b on B cells covalently bound via a cleavable linker to Microtubule-disrupting anti-mitotic agent monomethyl auristatin (MMAE) 2, an apoptosis stimulant that inhibits mitosis, tubulin, and tubulin polymerization 2.

This research grade biosimilar has the same specificity as the original therapeutic antibody but lacks the conjugated MMAE drug.

Polatuzumab was generated by immunizing mice with the extracellular domain of CD79b 1, 4. Recombinant technology was then used to humanize the anti-CD79b antibody and sequence optimize it.

Polatuzumab has been approved for the treatment of some adults with relapsed/refractory diffuse large B cell lymphoma (DLBCL) and various clinical trials are in progress 1.

Known Reactivity Species:
Human

Expression Host:
HEK-293 Cells

Format:
Purified No Carrier Protein

Immunogen:
Humanized antibody derived from mouse clone targeting CD79b

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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:

FA,

ELISA

Country of Origin
USA

References
1. Polson AG, Yu SF, Elkins K, et al. Blood. 110(2):616-623. 2007.
2. Deeks ED. Drugs. 79(13):1467-1475. 2019.
3. Pfeifer M, Zheng B, Erdmann T, et al. Leukemia. 29(7):1578-1586. 2015.
4. Dornan D, Bennett F, Chen Y, et al. Blood. 114(13):2721-2729. 2009.
5. Polson AG, Williams M, Gray AM, et al. Leukemia. 24(9):1566-1573. 2010.

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