Leinco Technologies, Inc.
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Anti-Human CD319 (SLAMF7) (Elotuzumab)

Biosimilar Recombinant Human Monoclonal Antibody

Product Information

Product No.:	C1060
Clone:	HuLuc63
Isotype:	Human Human IgG1κ

Product Description

Specificity:
This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Elotuzumab. This product is for research use only. Elotuzumab recognizes the extracellular region of CD319 (also known as SLAMF7,CS1, and CD2-like receptor activating cytotoxic cells [CRACC]) at the membrane-proximalIgC2-like domain.

Antigen Distribution:
CD319 is expressed on certain healthy lymphocytes, including natural killer (NK) cells, NK-like T cells, CD8+ T cells, activated monocytes, and dendritic cells, as well as plasma cells. CD319 is highly expressed on multiple myeloma cells.

Background:
CD319 is a cell surface glycoprotein that is a member of the immunoglobulin gene superfamily and is universally highly expressed on multiple myeloma (MM) cells, where it functions in human MM cell adhesion[1]. Since it is not detectable in healthy donor samples, CD319 has been targeted for the development of MM immunotherapy[1, 2].

Elotuzumab is a humanized monoclonal antibody against CD319 that was developed as a MM immunotherapeutic[1, 2]. Elotuzumab was generated by immunizing female BALB/c mice with purified CD319 protein[2]. Spleen cells were fused to the P3X63Ag8 fusion partner, and the resulting hybridomas were screened. Murine MuLuc63 was identified as CD319 specific and Humanized.

Elotuzumab activity is mediated through antibody-dependent cellular cytotoxicity and direct NK cell activation[1, 2, 3, 4]. In vitro, elotuzumab inhibits binding of MM cells to bone marrow stromal cells and in vivo it inhibits tumor progression in murine xenografts and clinical trials[1, 2, 4]. Additionally, elotuzumab inhibits proliferation and survival of MM cells[1]. Elotuzumab also induces IFN-γ production[3].

In flow cytometry analysis of MM samples, elotuzumab binds strongly to the majority of plasma cells[2]. In contrast, in healthy donors, elotuzumab primarily binds D3+CD16+CD56+ NK-like T cells, CD3-CD16+CD56+ NK cells, and approximately half of CD3+CD8+ T cells. Additionally, low levels of

binding are detected on CD3+CD8- T cells and none on monocytes (CD14+HLA-DR+), B cells (CD20+HLA-DR+), or granulocytes (CD13+CD45+). Elotuzumab has been approved for the treatment of some patients with multiple myeloma [4].

Known Reactivity Species:
Human

Expression Host:
HEK-293 Cells

Format:
Purified No Carrier Protein

Immunogen:
Humanized antibody derived from mouse clone MuLuc63

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:

ELISA,
WB,
FA,

Country of Origin
USA

References
1 Tai YT, Dillon M, Song W, et al. Blood. 112(4):1329-1337. 2008.
2 Hsi ED, Steinle R, Balasa B, et al. Clin Cancer Res. 14(9):2775-2784. 2008.
3 Collins SM, Bakan CE, Swartzel GD, et al. Cancer Immunol Immunother. 62(12):1841-1849. 2013.
4 Markham A. Drugs. 76(3):397-403. 2016.

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

410 Axminister Dr, St. Louis, MO 63026 (800) 538-1145 leincoglobal@leinco.com