

12-8025: Anti-Human CD20 (Rituximab)

Clonality :	Monoclonal
Clone Name :	10F381
Application :	FACS
Alternative Name :	B1; S7; Bp35; CVID5; MS4A2; LEU-16; MS4A1; membrane spanning 4-domains A1
Isotype :	Human IgG1k
Immunogen Information :	Human lymphoblastoid cell line SB.

Description

Expression Host : HEK-293

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 this recombinant biosimilar antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

This non-therapeutic biosimilar antibody uses the same variable region sequence as the therapeutic antibody Rituximab. Clone 10F381 recognizes human CD20. This product is for research use only.

CD20 is a 33-37 kD transmembrane-spanning phosphoprotein found on the surface of developing B-cells and various B-cell malignancies. CD20 is a popular target for mAb therapy because depleting developing B-cells generally does not cause permanent side effects (due to the fact that mature plasma cells and B-cell progenitors do not express CD20 and that there is limited expression of CD20 among other cell lineages). Rituximab is a chimeric monoclonal antibody that binds to CD20. The precise function of CD20 is still unknown. However, it is suspected to play a role in Ca^{2+} influx across plasma membranes, maintaining intracellular Ca^{2+} concentration, and allowing the activation of B cells. Rituximab is used to treat some autoimmune diseases and types of cancer such as non-Hodgkin lymphoma, chronic lymphocytic leukemia, and rheumatoid arthritis among others. The Fc portion of Rituximab mediates antibody-dependent cellular cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC). Rituximab increases MHC II and adhesion molecules LFA-1 and LFA-3 (lymphocyte function-associated antigen) and also induces apoptosis of CD20+ cells. This ultimately results in the elimination of B cells (including the cancerous ones) from the body, and thus allows a new population of healthy B cells to develop from lymphoid stem cells. Anti-Human CD20 (Rituximab) utilizes the same variable regions from the therapeutic antibody Rituximab making it ideal for research projects.

Product Info

Amount :	50 µg / 100 µg
Purification :	>=95% monomer by analytical SEC
	Concentration : >= 5.0 mg/ml
Content :	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.
Storage condition :	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.

Application Note

Endotoxin : <= 1.0 EU/mg as determined by the LAL method

The suggested concentration for Rituximab 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.