

12-8027: Anti-Human CD20 (Rituximab) - PE

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

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 Ca²⁺ influx across plasma membranes, maintaining intracellular Ca²⁺ 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 ug
Content :	Concentration : 0.2 mg/ml This R-phycoerythrin (R-PE) conjugate is formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.4, 1% BSA and 0.09% sodium azide as a preservative.
Storage condition :	This R-phycoerythrin (R-PE) conjugate is stable when stored at 2-8°C. Do not freeze.

Application Note

The suggested concentration for Rituximab biosimilar antibody for staining cells in flow cytometry is $\leq 1.0 \mu\text{g}$ per 10^6 cells in a volume of 100 μl . Titration of the reagent is recommended for optimal performance for each application.