

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

<b>Clonality :</b>	Monoclonal
<b>Clone Name :</b>	10F381
<b>Application :</b>	FACS
<b>Alternative Name :</b>	B1; S7; Bp35; CVID5; MS4A2; LEU-16; MS4A1; membrane spanning 4-domains A1
<b>Isotype :</b>	Human IgG1k
<b>Immunogen Information :</b>	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 Ca<sup>2+</sup> influx across plasma membranes, maintaining intracellular Ca<sup>2+</sup> 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

<b>Amount :</b>	50 ug Concentration : 0.2 mg/ml
<b>Content :</b>	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.
<b>Storage condition :</b>	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  $\mu\text{l}$ . Titration of the reagent is recommended for optimal performance for each application.