

## IVMB0530

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### Product Information

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| <b>Product SKU:</b> IVMB0530 | <b>Clone:</b> 10F381 | <b>Target:</b> CD20         |
| <b>Size:</b> 100 µg          |                      | <b>Isotype:</b> Human IgG1k |

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### Additional Information

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|--|---------------------------------------|
| <b>Reactivity:</b> Human/Rhesus Monkey/Cynomolgus Monkey               | <b>Host Species:</b> Human            |
| <b>Antibody Type:</b> Biosimilar Recombinant Human Monoclonal Antibody | <b>Expression Host:</b> HEK-293 Cells |

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### Immunogen Information

**Background:** 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 Concentration:** 0.2 mg/ml

**Applications:** FC

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| <b>Synonyms:</b>               | B1; S7; Bp35; CVID5; MS4A2; LEU-16; MS4A1; membrane spanning 4-domains A1   |
| <b>Antigen Distribution:</b>   | CD20 is primarily found on the surface of immune system B cells. CD20 is highly expressed in the lymph node, and to a lesser extent, the spleen and appendix.                                     |
| <b>Immunogen:</b>              | Human lymphoblastoid cell line SB.  |
| <b>Formulation:</b>            | This DyLight 488 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>Specificity:</b>            | 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. |
| <b>Pathogen Testing:</b>       | -   |
| <b>Storage &amp; Handling:</b> | This DyLight 488 conjugate is stable when stored at 2-8°C. Do not freeze.   |