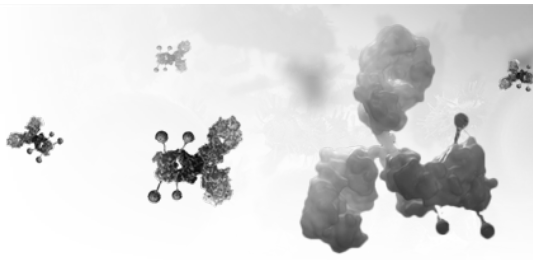

Human Anti-Human CD20 (Rituximab) Monoclonal Antibody, clone 10F381 [Biosimilar] (CABT-Z631H)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects human CD20. This non-therapeutic antibody uses the same variable region sequence as the therapeutic antibody Rituximab.
Immunogen	Human lymphoblastoid cell line SB.
Isotype	IgG1, κ
Source/Host	Human
Species Reactivity	Human
Clone	10F381
Purification	Protein A or G purified
Conjugate	Functional Grade
Applications	FA
Format	Liquid
Concentration	Lot specific
Size	200 µg
Buffer	0.01 M phosphate buffered saline (PBS) pH 7.2, 150 mM NaCl with no carrier protein, potassium or preservatives added. BSA and Azide free. Endotoxin Level ≤ 0.75 EU/mg as determined by the LAL method

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Preservative	None
Storage	Store at 2-8℃ for short term; -80℃ for long term. Avoid freeze / thaw cycle.
Ship	Wet ice

BACKGROUND

Introduction	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.
Keywords	MS4A1;membrane-spanning 4-domains, subfamily A, member 1;CD20;B-lymphocyte antigen CD20;B1;Bp35;Rituximab

GENE INFORMATION

Gene Name	MS4A1
Entrez Gene ID	931
UniProt ID	P11836

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