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CD20 / MS4A1 (B-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone 93-1B3]
Catalog # AH12669

Product Information

Application	IHC, FC
Primary Accession	P11836
Other Accession	931, 712553
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	93-1B3
Calculated MW	33077

Additional Information

Gene ID	931
Other Names	B-lymphocyte antigen CD20, B-lymphocyte surface antigen B1, Bp35, Leukocyte surface antigen Leu-16, Membrane-spanning 4-domains subfamily A member 1, CD20, MS4A1, CD20
Application Note	IHC~~1:100~500 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD20 / MS4A1 (B-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MS4A1
Synonyms	CD20
Function	B-lymphocyte-specific membrane protein that plays a role in the regulation of cellular calcium influx necessary for the development, differentiation, and activation of B-lymphocytes (PubMed:12920111, PubMed:3925015, PubMed:7684739). Functions as a store-operated calcium (SOC) channel component promoting calcium influx after activation by the B-cell receptor/BCR (PubMed:12920111, PubMed:18474602, PubMed:7684739).
Cellular Location	Cell membrane; Multi-pass membrane protein. Cell membrane; Lipid-anchor. Note=Constitutively associated with membrane rafts.

Tissue Location	Expressed on B-cells.

Background

Recognizes a protein of 30-33kDa, which is identified as CD20 (Workshop V; Code CD20.4). It is a non-Ig differentiation antigen of B-cells and its expression is restricted to normal and neoplastic B-cells, being absent from all other leukocytes and tissues. CD20 is expressed by pre B-cells and persists during all stages of B-cell maturation but is lost upon terminal differentiation into plasma cells. The protein passes through the membrane 4 times with both ends in cytoplasm and exposes one short and one longer loop to the external environment. CD20 is not glycosylated in resting B-cells and its cytoplasmic domains are differentially phosphorylated upon activation. It acts as calcium channel involved in B cell activation and cell cycle progression.

References

Cobbold, S. Et al., In leucocyte typing III (ed. McMichael A.J. et al.), Oxford University Press, 1987