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CD5 (Mantle Cell Lymphoma Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone B-B8]
Catalog # AH12615

Product Information

Application	IF, FC
Primary Accession	P06127
Other Accession	921, 58685
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	B-B8
Calculated MW	54578

Additional Information

Gene ID	921
Other Names	T-cell surface glycoprotein CD5, Lymphocyte antigen T1/Leu-1, CD5, CD5, LEU1
Application Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD5 (Mantle Cell Lymphoma Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD5
Synonyms	LEU1
Function	Lymphoid-specific receptor expressed by all T-cells and in a subset of B-cells known as B1a cells. Plays a role in the regulation of TCR and BCR signaling, thymocyte selection, T-cell effector differentiation and immune tolerance. Acts by interacting with several ligands expressed on B-cells such as CD5L or CD72 and thereby plays an important role in contact-mediated, T-dependent B-cell activation and in the maintenance of regulatory T and B-cell homeostasis. Functions as a negative regulator of TCR signaling during thymocyte development by associating with several signaling proteins including LCK, CD3Z chain, PI3K or CBL (PubMed:1384049, PubMed:1385158). Mechanistically, co- engagement of CD3 with CD5 enhances phosphorylated CBL recruitment leading to increased VAV1 phosphorylation and degradation

	(PubMed:23376399). Modulates B-cell biology through ERK1/2 activation in a Ca(2+)-dependent pathway via the non-selective Ca(2+) channel TRPC1, leading to IL-10 production (PubMed:27499044).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:P13379}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P13379}

Background

Recognizes a 67kDa transmembrane protein which is identified as CD5. The CD5 antigen is found on 95% of thymocytes and 72% of peripheral blood lymphocytes. In lymph nodes, the main reactivity is observed in T cell areas. Anti-CD5 is a pan T-cell marker that also reacts with a range of neoplastic B-cells, e.g. chronic lymphocytic leukemia/small lymphocytic lymphoma (CLL/SLL), mantle cell lymphoma, and a subset (~10%) of diffuse large B-cell lymphoma. CD5 aberrant expression is useful in making a diagnosis of mature T-cell neoplasms. Note that this MAb is not suitable for frozen tissues.

References

Berezowski K; et al. American Journal of Clinical Pathology, 1996 Oct, 106(4):483-6. | Ferry JA; et al. American Journal of Clinical Pathology, 1996 Jan, 105(1):31-7