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CD45RO (T-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone SPM125]
Catalog # AH10688

Product Information

Application	IF, FC, IHC-P
Primary Accession	P08575
Other Accession	5788, 654514
Reactivity	Human, Chimpanzee
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2a, kappa
Clone Names	SPM125
Calculated MW	147486

Additional Information

Gene ID	5788
Other Names	Receptor-type tyrosine-protein phosphatase C, 3.1.3.48, Leukocyte common antigen, L-CA, T200, CD45, PTPRC, CD45
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD45RO (T-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PTPRC (HGNC:9666)
Synonyms	CD45
Function	Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor (PubMed:35767951). Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN. Dephosphorylates LYN, and thereby modulates LYN activity (By similarity). Interacts with CLEC10A at antigen presenting cell-T cell contact;

	CLEC10A on immature dendritic cells recognizes Tn antigen- carrying PTPRC/CD45 receptor on effector T cells and modulates T cell activation threshold to limit autoreactivity.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Membrane raft. Synapse. Note=Colocalized with DPP4 in membrane rafts.
Tissue Location	Isoform 1: Detected in thymocytes. Isoform 2: Detected in thymocytes. Isoform 3: Detected in thymocytes. Isoform 4: Not detected in thymocytes. Isoform 5: Detected in thymocytes. Isoform 6: Not detected in thymocytes. Isoform 7: Detected in thymocytes Isoform 8: Not detected in thymocytes.

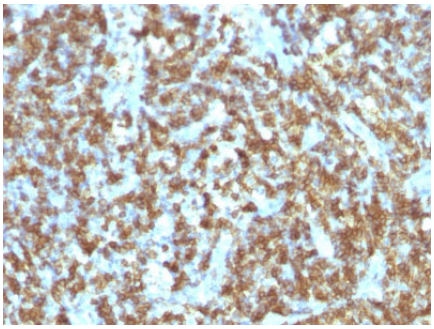
Background

Recognizes a 180-185kDa protein, identified as isoform of leukocyte common antigen (CD45RO). The epitope recognized by this antibody is sensitive to neuraminidase digestion. This antibody reacts with mature activated T-cells, most thymocytes, and a sub-population of resting T-cells within both CD4 and CD8 subsets. It shows no reactivity with normal B or natural killer cells, but reacts with granulocytes and monocytes. Reportedly, it is useful to identify T-cell lymphomas and leukemias. It rarely stains NK cells or B-cell lymphomas.

References

Knapp W, et al. Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York.2. Ishii T, et al. 2001. P. Natl. Acad. Sci. USA 98:12138.3. Ponsford M, et al. 2001. Clin. Exp. Immunol. 124:315.4. Yamada M, et al. 1996. Stroke 27:1155. 5. Sakkas LI, et al. 1998. Clin. Diagn. Lab. Immunol. 5:430

Images



Formalin-fixed, paraffin-embedded human Lymphoma stained with CD45RO Monoclonal Antibody (SPM125).