

Product datasheet for **TA327642**

CD45 (PTPRC) Mouse Monoclonal Antibody [Clone ID: MB1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	MB1
Applications:	IHC
Recommended Dilution:	IHC: 1:25 - 1:100
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Formulation:	This antibody is supplied as cell culture supernatant diluted in tris buffered saline, pH 7.3-7.7, with 1% BSA and <0.1% sodium azide.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	protein tyrosine phosphatase, receptor type C
Database Link:	NP_002829 Entrez Gene 5788 Human P08575
Synonyms:	B220; CD45; CD45R; GP180; L-CA; LCA; LY5; T200



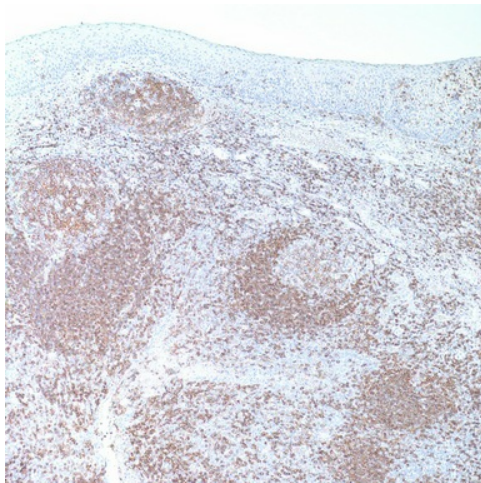
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Note: CD45R, also named MB1, is the isoform of CD45, the protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment, and two tandem intracytoplasmic catalytic domains and thus belongs to receptor type PTP. This gene is specifically expressed in hematopoietic cells and has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. CD45 functions as a phospho-tyrosine phosphatase, a vital component for efficient tyrosine phosphorylation induction by the TCR/CD3 complex. The tyrosine phosphatase activity of CD45 is contained within the conserved intracellular domain. Src and Syk family protein tyrosine kinases are utilized by the TCR/CD3 complex to initiate signaling cascades. Several members of these two families, including Lck, Fyn and Zap70, have been implicated as physiological substrates of CD45. This antibody exhibits strong and specific reactivity with most B-lymphocytes such as follicle center cells, mantle cells, some medullary thymocytes, post-thymic naïve T-lymphocytes, and 80% of B-cell lymphomas. It is a useful marker for distinguishing B-cell lymphomas from T-cell lymphomas.

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Phosphatase, Transmembrane

Protein Pathways: Cell adhesion molecules (CAMs), Fc gamma R-mediated phagocytosis, Primary immunodeficiency, T cell receptor signaling pathway

Product images:



Immunohistochemistry staining of Paraffin Tonsil tissue by CD45R antibody (dilution: 1:25 - 1:100; visualization of staining: Membranous)