

## Product datasheet for **AM33268PU-S**

### CD45 (PTPRC) Mouse Monoclonal Antibody [Clone ID: SPM569 + SPM570]

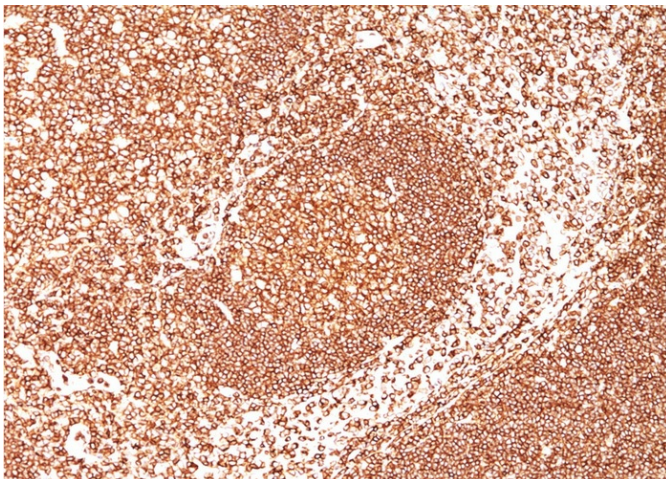
#### Product data:

Product Type:	Primary Antibodies
Clone Name:	SPM569 + SPM570
Applications:	FC, IF, IHC, WB
Recommended Dilution:	<b>Western Blot:</b> 0.5-1 µg/ml. <b>Flow Cytometry:</b> 0.5-1 µg/10 <sup>6</sup> cells. <b>Immunofluorescence:</b> 0.5-1 µg/ml. <b>Immunohistochemistry on Formalin-Fixed Paraffin Sections:</b> 0.5-1.0 µg/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes. <b>Positive Control:</b> Ramos, U-698, or GA-10 cells, Tonsil.
Reactivity:	Canine, Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Isolated neoplastic cells from T cell lymphoma and human peripheral blood lymphocytes maintained in T cell growth factor.
Specificity:	This Monoclonal antibody recognizes the CD45 leukocyte common antigen (LCA) family which is comprised of at least four isoforms of membrane glycoproteins (220, 205, 190, 180kDa) expressed on hematopoietic cell lines but absent on non-hematopoietic cell lines, normal and malignant non-hematopoietic tissues. The intracellular portions of these molecules have protein phosphatase activity and are involved in regulation of transmembrane signals. Antibody to CD45 is useful in differential diagnosis of lymphoid tumors from non-hematopoietic undifferentiated neoplasms. A positive result with this Monoclonal antibody is highly indicative of lymphoid or myeloid origin. Certain types of lymphoid neoplasms may lack CD45 (Hodgkin lymphoma, some T-cell lymphomas, and some leukemias) so its absence does not rule out a hematomymphoid tumor. This antibody is expressed almost exclusively by cells of hematopoietic lineage and is present in most benign and malignant lymphocytes as well as plasma cell precursors. <b>Cellular Localization:</b> Cell surface and Cytoplasmic.



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<b>Formulation:</b>	10mM PBS State: Purified State: Liquid purified IgG fraction from Bioreactor Concentrate Stabilizer: 0.05% BSA Preservative: 0.05% Sodium Azide
<b>Concentration:</b>	lot specific
<b>Purification:</b>	Protein A/G Chromatography
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store undiluted at 2-8°C.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Predicted Protein Size:</b>	180-220 kDa
<b>Gene Name:</b>	protein tyrosine phosphatase, receptor type C
<b>Database Link:</b>	<a href="#">Entrez Gene 5788 Human P08575</a>
<b>Background:</b>	<p>CD45, a transmembrane multifunctional glycoprotein, is a member of the Type I receptor-linked PTPase family. Its physiological functions include T and Bcell activation and proliferation, negative regulation of T and Bcell antigen receptor signaling and cytokine-receptor signaling, negative regulation of IL-3 mediated cellular proliferation, EPO-dependant homeopoiesis and anti-viral responses, regulation of integrin-mediated adhesion and migration of immune cells, chemokine-induced T-cell chemotaxis, MHC-II signaling, IgE mediated degranulation in mast cells, CD40L-induced microglial activation and IL-4 mediated IgE class switch recombination in Bcells. Loss of CD45 has been implicated in SCID, Alzheimer's disease and multiple sclerosis.</p> <p>CD45R, also designated CD45 and PTPRC, has been identified as a transmembrane glycoprotein, broadly expressed among hematopoietic cells. Multiple isoforms of CD45R are distributed throughout the immune system according to cell type. These isoforms arise because of alternative splicing of exons 4, 5, and 6. The corresponding protein domains are characterized by the binding of monoclonal antibodies specific for CD45RA (exon 4), CD45RB (exon 5), CD45RC (exon 6) and CD45RO (exons 4 to 6 spliced out). The variation in these isoforms is localized to the extracellular domain of CD45R, while the intracellular domain is conserved. CD45R functions as a phosphor-tyrosine phosphatase.</p>
<b>Synonyms:</b>	PTPRC, Leukocyte common antigen, L-CA, T200

**Product images:**

Formalin-Fixed, Paraffin-Embedded Human tonsil (10X) stained with CD45 Antibody (Clone SPM569 + SPM570).

