

## Product datasheet for **UM800180CF**

### CD45 (PTPRC) Mouse Monoclonal Antibody [Clone ID: UMAB291]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	UMAB291
Applications:	IHC
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 221-396 of human CD45 (NP_002829) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Predicted Protein Size:	147.1 kDa
Gene Name:	protein tyrosine phosphatase receptor type C
Database Link:	<a href="#">NP_002829</a> <a href="#">Entrez Gene 5788 Human</a> <a href="#">P08575</a>



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**Background:**

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, mitosis, and oncogenic transformation. This PTP contains an extracellular domain, a single transmembrane segment and two tandem intracytoplasmic catalytic domains, and thus is classified as a receptor type PTP. This PTP has been shown to be an essential regulator of T- and B-cell antigen receptor signaling. It functions through either direct interaction with components of the antigen receptor complexes, or by activating various Src family kinases required for the antigen receptor signaling. This PTP also suppresses JAK kinases, and thus functions as a regulator of cytokine receptor signaling. Alternatively spliced transcripts variants of this gene, which encode distinct isoforms, have been reported. [provided by RefSeq, Jun 2012]

**Synonyms:**

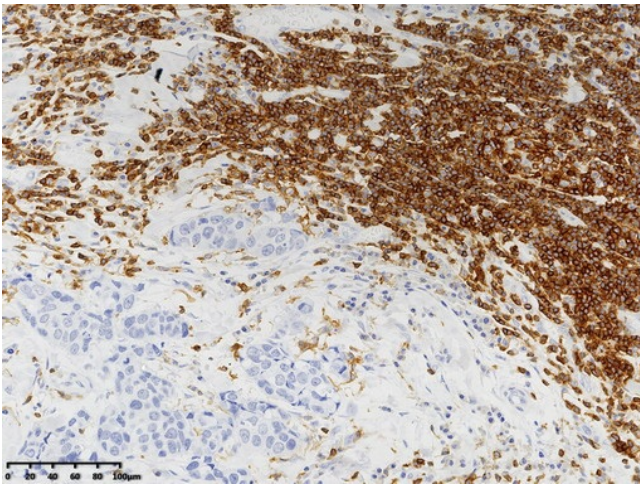
B220; CD45; CD45R; GP180; L-CA; LCA; LY5; T200

**Protein Families:**

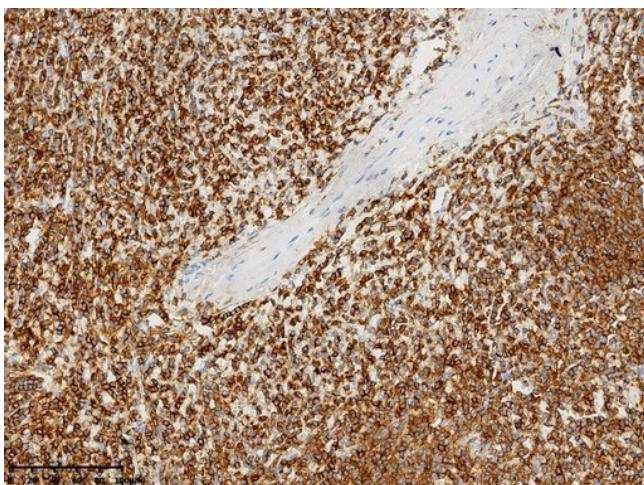
Druggable Genome, ES Cell Differentiation/IPS, Phosphatase, Transmembrane

**Protein Pathways:**

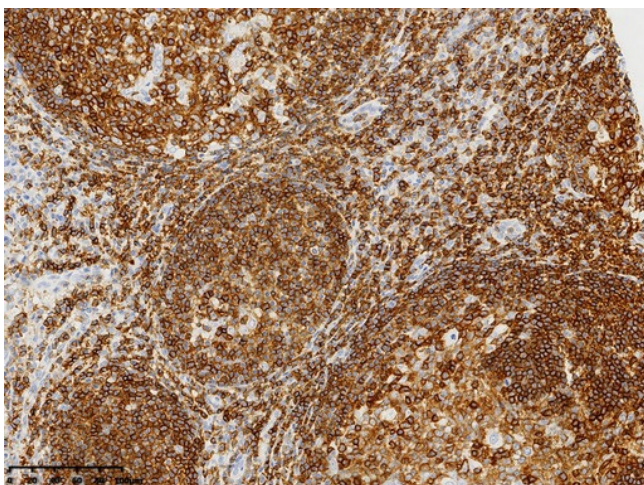
Cell adhesion molecules (CAMs), Fc gamma R-mediated phagocytosis, Primary immunodeficiency, T cell receptor signaling pathway

**Product images:**

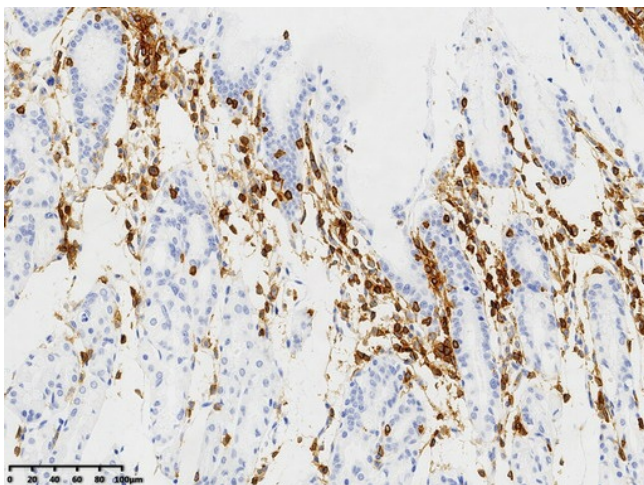
Immunohistochemical staining of paraffin-embedded Carcinoma of Human lung tissue using anti-CD45 (PTPRC) mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3 min, [UM800180]) (1:500)



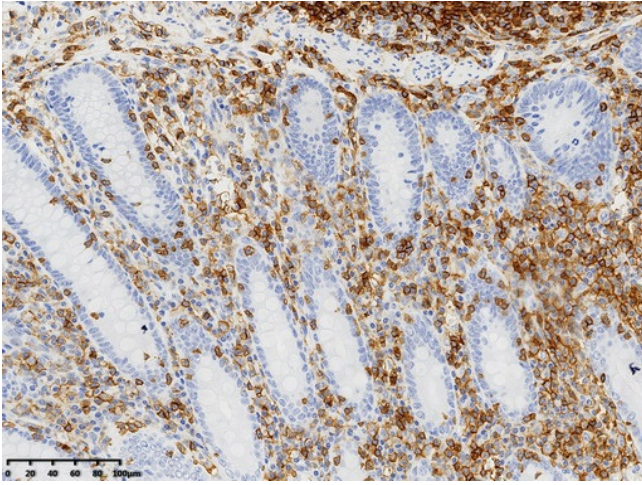
Immunohistochemical staining of paraffin-embedded Human lymphoma tissue using anti-CD45 (PTPRC) mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3 min, [UM800180]) (1:500)



Immunohistochemical staining of paraffin-embedded Human tonsil within the normal limits using anti-CD45 (PTPRC) mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3 min, [UM800180]) (1:500)



Immunohistochemical staining of paraffin-embedded Human gastric tissue within the normal limits using anti-CD45 (PTPRC) mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3 min, [UM800180]) (1:500)



Immunohistochemical staining of paraffin-embedded Human appendix tissue within the normal limits using anti-CD45 (PTPRC) mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3 min, [UM800180]) (1:500)