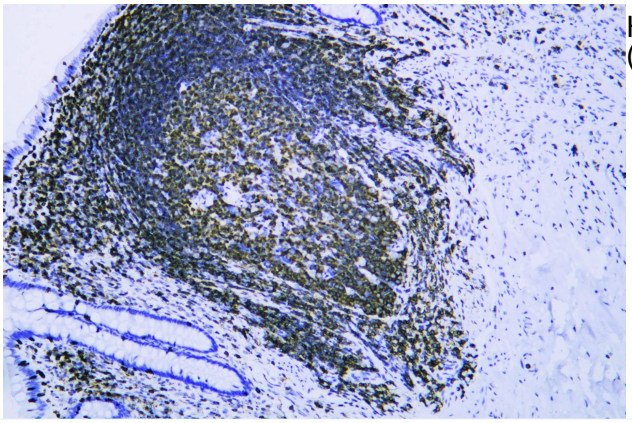
CD45 (LCA) (ABT114R) Rabbit mAb (Ready to Use)

Catalog No	YP-rAb-18189
Isotype	IgG
Reactivity	Human
Applications	IHC
Gene Name	PTPRC
Protein Name	Receptor-type tyrosine-protein phosphatase C (Leukocyte common antigen) (L-CA) (T200) (CD antigen CD45)
Purification Process	Protein A
Specificity	This antibody detects endogenous levels of CD45
Formulation	The prediluted ready-to-use antibody is diluted in phosphate buffer saline containing stabilizing protein and 0.05% Proclin 300
Source	Monoclonal, Rabbit,IgG
Dilution	Ready to use for IHC Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	2° C to 8° C/1 year,Ship by ice bag
Synonyms	B220 ; CD 45 ; CD45 ; CD45 antigen ; CD45R ; GP180 ; L-CA ; LCA ; Leukocyte common antigen ; loc ; Ly-5 ; LY5 ; Ly5, homolog of ; Lyt-4 ; OTTHUMP00000033813 ; OTTHUMP00000033816 ; OTTHUMP00000033817 ; OTTHUMP00000038574 ; Protein tyrosine phosphatase receptor type c polypeptide ; Protein tyrosine phosphatase, receptor type C ; protein tyrosine phosphatase, receptor type, C ; Protein tyrosine phosphatase, receptor type, c polypeptide ; Ptprc ; PTPRC_HUMAN ; Receptor-type tyrosine-protein phosphatase C ; T200 ; T200 glycoprotein ; T200 leukocyte common antigen
Observed Band	
Calculated Molecular Weight	
Cell Pathway	Membranous
Tissue Specificity	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.

Function	Alternative products:At least 8 isoforms are produced,Catalytic activity:Protein tyrosine phosphate + H(2)O = protein tyrosine + phosphate.,Disease:Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)B(+)NK(+)SCID) [MIM:608971]. SCID refers to a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients with SCID present in infancy with recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development.,Disease:Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative disorder characterized by the gradual accumulation of focal plaques of demyelination particularly in the periventricular areas of the brain. Peripheral nerves are not affected. Onset usually in third or fourth decade with intermittent progression over an extended period. The cause is still uncertain.,Domain:The first PTPase domain interacts with SKAP1.,Function:Required for T-cell activation through the antigen receptor. 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 an dephosphorylates SKAP1 and FYN.,online information:CD45 entry,online information:PTPRC mutation db,PTM:Heavily N- and O-glycosylated.,similarity:Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily.,similarity:Contains 2 fibronectin type-III domains.,similarity:Contains 2 tyrosine-protein phosphatase domains.,subunit:Binds GANAB and PRKCSH (By similarity). Interacts with SKAP1.,
Background	The protein encoded by this gene is a member of the protein tyrosine phosphatase 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 enc
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Human appendix was stained with anti-CD45 (LCA) (ABT114R) rabbit mAb