

## Anti-CD45/PTPRC Antibody Picoband® Biotin Conjugated

Catalog Number: PB9096-Biotin

### About PTPRC

CD45 (Cluster of Differentiation 45), also known as PTPRC, LCA or CD45R, is an enzyme that, in humans, is encoded by the PTPRC gene. CD45 is a member of the protein tyrosine phosphatase (PTP) family. CD45 is a major high molecular mass leukocyte cell surface molecule which is also an integral membrane protein tyrosine phosphatase. The cytogenetic location of CD45 is 1q31.3-q32.1. This gene is especially a prototype for transmembrane protein-tyrosine phosphatase (PTP). Targeted disruption of the CD45 gene leads to enhanced cytokine and interferon receptor-mediated activation of JAKs and STAT proteins. In vitro, CD45 directly dephosphorylates and binds to JAKs. Functionally, CD45 negatively regulates interleukin-3-mediated cellular proliferation, erythropoietin-dependent hematopoiesis, and antiviral responses in vitro and in vivo. CD45 has been best studied in T cells, where it determines T cell receptor signaling thresholds. CD45 is moved into or out of the immunological synapse (IS) membrane microdomain depending on the relative influence of interaction with the extracellular galectin lattice or the intracellular actin cytoskeleton. Galectin interaction can be finetuned by varying usage of the heavily Oglycosylated spliced regions and sialylation of Nlinked carbohydrates.

### Overview

Product Name	Anti-CD45/PTPRC Antibody Picoband® Biotin Conjugated
Reactive Species	Human
Application	WB, IHC, ELISA
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.02% Na <sub>3</sub> N.
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P08575

### Technical Details

Immunogen	E.coli-derived human CD45 recombinant protein (Position: R1113-S1304). Human CD45 shares 68% amino acid (aa) sequence identity with both mouse and rat CD45.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL
Purification	Immunogen affinity purified.

Conjugate	Biotin
Suggested Dilutions	Western blot, Optimal dilutions should be determined by end users. Immunohistochemistry (Paraffin-embedded Section), Optimal dilutions should be determined by end users. ELISA, Optimal dilutions should be determined by end users.

## 6 Publications Citing This Product

1. PubMed ID: 12133481, Fas counterattack in cholangiocarcinoma: A mechanism for immune evasion in human hilar cholangiocarcinomas
2. PubMed ID: 26616638, Isolation and morphological characterization of ovine amniotic fluid mesenchymal stem cells
3. PubMed ID: 26526388, CD11b deficiency suppresses intestinal tumor growth by reducing myeloid cell recruitment

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