

## Basic Information

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|---------------------------|--|
| <b>Product Name</b>       | Anti-CD45/PTPRC DyLight 488 Conjugated Antibody  |
| <b>Gene Name</b>          | PTPRC  |
| <b>Source</b>             | Rabbit   |
| <b>Isotype</b>            | IgG  |
| <b>Species Reactivity</b> | human  |
| <b>Tested Application</b> | IF, FCM  |
| <b>Contents</b>           | 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.   |
| <b>Immunogen</b>          | 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. |
| <b>fluorophores</b>       | Amax=488nm; Emax=515-545nm   |
| <b>Conjugate</b>          | DyLight 488  |
| <b>concentration</b>      | 500ug/ml   |
| <b>Purification</b>       | Immunogen affinity purified.   |
| <b>Dilution Ratios</b>    | Immunofluorescence (IF):1:50-400<br>Flow cytometry (FCM): 1-3 µg/1x10 <sup>6</sup> cells   |

## Storage

At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.

## Background Information

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.

## Selected Validation Data

Product datasheet

## Anti-CD45/PTPRC DyLight 488

### Conjugated Antibody

**Catalog Number: PB9096-Dyl488**

# BOSTER

antibody and ELISA experts

**BOSTER BIOLOGICAL TECHNOLOGY**

Special NO.1, International Enterprise Center,  
2nd Guanshan Road, Wuhan, China

**Web:** [www.boster.com.cn](http://www.boster.com.cn) **Phone:** +86 027-67845390 **Fax:** +86 027-67845390 **Email:** [boster@boster.com.cn](mailto:boster@boster.com.cn)

