**Description:** RAT ANTI MOUSE CD45

**Specificity:** CD45

**Other names:** LCA

**Format:** Purified

**Product Type:** Monoclonal Antibody

**Clone:** YW62.3

**Isotype:** IgG2b

**Quantity:** 25 µg

**Applications**

<table>
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<tr>
<th>Applications</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
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<tr>
<td>Flow Cytometry</td>
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<td>1/100 - 1/200</td>
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<td>Immunohistology - Frozen</td>
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<td>Immunohistology - Paraffin</td>
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Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**Target Species**

Mouse

**Product Form**

Purified IgG - liquid

**Preparation**

Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

**Buffer Solution**

Phosphate buffered saline

**Preservative Stabilisers**

0.09% Sodium Azide

**Carrier Free**

Yes

**Approx. Protein Concentrations**

IgG concentration 1.0 mg/ml

**Immunogen**

Mouse spleen cells.
Spleen cells from immunised DA rats were fused with cells of the rat Y3Ag1.2.3 myeloma cell line.

**Specificity**

Rat anti Mouse CD45 antibody, clone YW62.3 recognizes the murine CD45 cell surface antigen, a single pass type1 transmembrane glycoprotein also known as protein tyrosine phosphatase receptor type C (PTPRC) and originally termed Leucocyte Common Antigen (LCA). CD45 is a 180-220kDa glycoprotein expressed by all leucocytes.

CD45 is encoded by 3 alleles in mice, differentially expressed by various inbred strains. The Ly5 gene was originally described with the gene product LY5.1 expressed in C57bl/6 and Ly5.2 expressed in SJL strains (Komura et al. 1975), this was subsequently expanded to include a third allele encoding Ly5.3 (Shen et al. 1986). Further, in 1987 a reversal of nomenclature was instigated resulting in the allele in C57bl/6 becoming Ly5b encoding Ly5.2 and the allele in SJL mice becoming Ly5a encoding Ly5.1 (Morse et al. 1987). Further changes were made in 1992 with Ly5.1 becoming CD45.1 (SJL) and Ly5.2 becoming CD45.2 (C57bl/6). Finally, following work demonstrating homology between the CD45 antigen and a receptor linked protein tyrosine phosphatase the CD45a gene was renamed Ptprca and CD45b renamed Ptprcb (Charbonneau et al. 1988; Zebedee et al. 1991).

A number of different isoforms of CD45 are expressed on murine leucocytes depending on the pattern of alternative splicing of 3 exons termed A, B and C encoding regions of ~ 50 amino acids located at the N terminal region of the extracellular portion of CD45. The restricted proteins are termed CD45R with a designation depending on the expressed codon product. (Birkeland et al. 1989).

Rat anti mouse CD45 antibody, clone YW62.3 is reactive with all isoforms of murine CD45.

N.B. Some reactivity with human tissue has been observed.

**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.

**References**


Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information


Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...) DyLight®800
Goat Anti Rat IgG (STAR73...) RPE
Rabbit Anti Rat IgG (STAR21...) HRP
Rabbit Anti Rat IgG (STAR17...) FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) DyLight®549, DyLight®649, DyLight®800
Goat Anti Rat IgG (STAR131...) Alk. Phos., Biotin
Goat Anti Rat IgG (STAR69...) FITC
Goat Anti Rat IgG (STAR72...) HRP

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