

# CD45R (B220) Monoclonal Antibody (RA3-6B2), Super Bright 645, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Super Bright 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	RA3-6B2
Conjugate	Super Bright 645
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2662431

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	6 Publications
Flow Cytometry (Flow)	0.5 µg/test	5 Publications

## Product Specific Information

**Description:** The RA3-6B2 monoclonal antibody reacts with exon A-restricted isoform of mouse CD45, a 220 kDa surface molecule. CD45R/B220 epitope is mainly expressed by the B cell lineage from early Pro-B to mature B cells. However, some activated T cells, lymphokine activated killer cells (LAK), NK cell progenitors in the bone marrow, and T cells of the lpr/lpr mutant mouse also express this antigen.

**Applications Reported:** This RA3-6B2 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This RA3-6B2 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright

Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

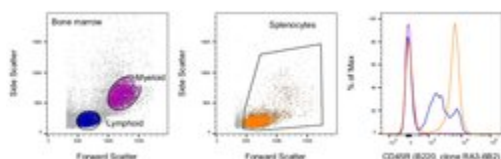
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 645 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

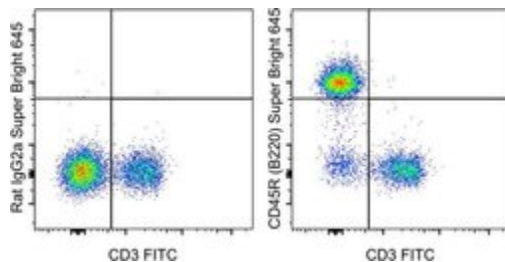
## Advanced Verification Data



### CD45R (B220) Antibody (64-0452-82)

Staining of mouse splenocytes and bone marrow cells. As expected based on known relative expression patterns, CD45R (B220) clone RA3-6B2 stains subsets in both the splenocytes gate and the bone marrow lymphoid gate but not the bone marrow myeloid gate. Details: Balb/c bone marrow cells (left) and splenocytes (middle) were surface stained with CD45R (B220, clone RA3-6B2) followed by staining with 7-AAD. Viable bone marrow cells in the lymphoid (blue histogram) and myeloid (purple histogram) gates and viable splenocytes (orange histogram) were used for analysis. Relative expression validation info.

## Product Images For CD45R (B220) Monoclonal Antibody (RA3-6B2), Super Bright 645, eBioscience™



### CD45R (B220) Antibody (64-0452-82) in Flow

Staining of C57Bl/6 splenocytes with Anti-Mouse CD3 FITC (Product # 11-0032-82) and 0.25  $\mu$ g of Rat IgG2a K Isotype Control Super Bright 645 (Product # 64-4321-82) (left) or 0.25  $\mu$ g of Anti-Human/Mouse CD45R (B220) Super Bright 645 (Product # 64-0452-82) (right). Total viable cells were used for analysis.

View more figures on [thermofisher.com](http://thermofisher.com)

## 11 References

### Immunohistochemistry (6)

PloS one

#### High-throughput analysis of lung immune cells in a combined murine model of agriculture dust-triggered airway inflammation with rheumatoid arthritis.

"Published figure using CD45R (B220) monoclonal antibody (Product # 64-0452-82) in Immunohistochemistry"

Authors: Gaurav R,Mikulis TR,Thiele GM,Nelson AJ,Niu M,Guda C,Eudy JD,Barry AE,Wyatt TA,Romberger DJ,Duryee MJ,England BR,Poole JA

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

Cell death & disease

#### Hypoxia-induced miR-210 modulates the inflammatory response and fibrosis upon acute ischemia.

"Published figure using CD45R (B220) monoclonal antibody (Product # 64-0452-82) in Immunohistochemistry"

Authors: Zaccagnini G,Greco S,Longo M,Maimone B,Voellenkle C,Fuschi P,Carrara M,Creo P,Maselli D,Tirone M,Mazzone M,Gaetano C,Spinetti G,Martelli F

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

[View more IHC references on thermofisher.com](#)

### Flow Cytometry (5)

Frontiers in immunology

#### Myeloid Cell CK2 Regulates Inflammation and Resistance to Bacterial Infection.

"Published figure using CD45R (B220) monoclonal antibody (Product # 64-0452-82) in Flow Cytometry"

Authors: Larson SR,Bortell N,Illies A,Crisler WJ,Matsuda JL,Lenz LL

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

Nature communications

#### The lysophospholipase D enzyme Gdpd3 is required to maintain chronic myelogenous leukaemia stem cells.

"Published figure using CD45R (B220) monoclonal antibody (Product # 64-0452-82) in Flow Cytometry"

Authors: Naka K,Ochiai R,Matsubara E,Kondo C,Yang KM,Hoshii T,Araki M,Araki K,Sotomaru Y,Sasaki K,Mitani K,Kim DW,Ooshima A,Kim SJ

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

[View more Flow references on thermofisher.com](#)

### More applications with references on thermofisher.com

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