

# Product Datasheet

## CD45 Antibody (30-F11) - BSA Free NB100-77417

Unit Size: 0.5 mg

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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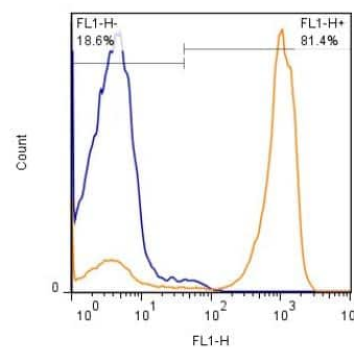
**NB100-77417**

CD45 Antibody (30-F11) - BSA Free

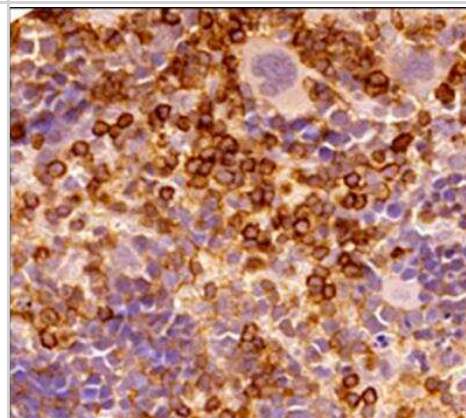
<b>Product Information</b>	
<b>Unit Size</b>	0.5 mg
<b>Concentration</b>	1.0 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	30-F11
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG2b Kappa
<b>Purity</b>	Protein G purified
<b>Buffer</b>	PBS
<b>Target Molecular Weight</b>	145 kDa
<b>Product Description</b>	
<b>Host</b>	Rat
<b>Gene ID</b>	5788
<b>Gene Symbol</b>	PTPRC
<b>Species</b>	Human, Mouse, Rat
<b>Reactivity Notes</b>	Use in Human reported in scientific literature (PMID:34494385).
<b>Specificity/Sensitivity</b>	Recognizes all CD45 isoforms as well as the known mouse CD45 alloantigens (CD45-1/Ly 5a and CD45-2/Ly 5b)
<b>Immunogen</b>	This CD45 Antibody (30-F11) was prepared from Mouse thymus or spleen.
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Flow Cytometry, Functional, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, In vitro assay, In vivo assay, Immunoprecipitation, CyTOF-ready
<b>Recommended Dilutions</b>	Western Blot 1:100-1:2000, Flow Cytometry 1:10-1:1000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen 1:10-1:500, Functional reported in scientific literature (PMID 7743522), In vitro assay reported in scientific literature (PMID 1974916), In vivo assay reported in multiple pieces of scientific literature, CyTOF-ready
<b>Application Notes</b>	Each lot of this CD45 antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. IF data from customer review. For immunofluorescent staining, the suggested use of this reagent is: 0.25 microgram per one million cells in 100 microliter volume. It is recommended that the reagent be titrated for optimal performance for each application. This antibody is CyTOF ready. NB100-77417 may also be used for IHC with acetone-fixed frozen sections, zinc-fixed paraffin-embedded sections.

## Images

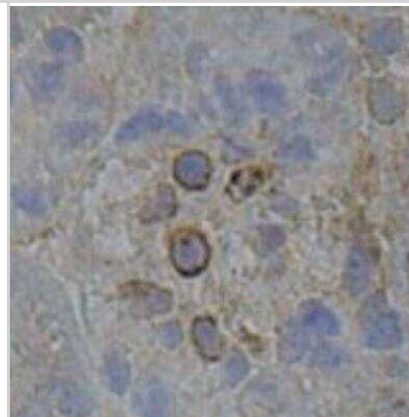
Flow Cytometry: CD45 Antibody (30-F11) [NB100-77417] - Analysis of CD45 (30F11) in freshly isolated mouse (Balb C) splenocytes ( $1 \times 10^6$ ) were stained with [NB100-77417] at 1:1000 dilution and detected with FITC conjugated donkey anti-rat IgG secondary (orange). Shown with rat IgG isotype control (blue).



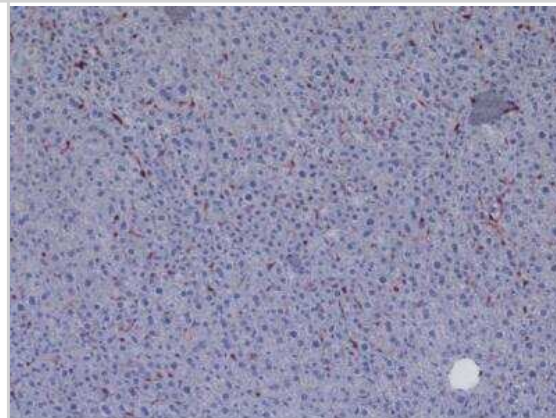
Immunohistochemistry-Paraffin: CD45 Antibody (30-F11) [NB100-77417] - Analysis of FFPE section of mouse spleen using rat monoclonal CD45 antibody (30-F11) [NB100-77417] at 1:50 dilution. The antibody generated an expected membrane staining in the red and white pulp splenocytes of the tested spleen section.



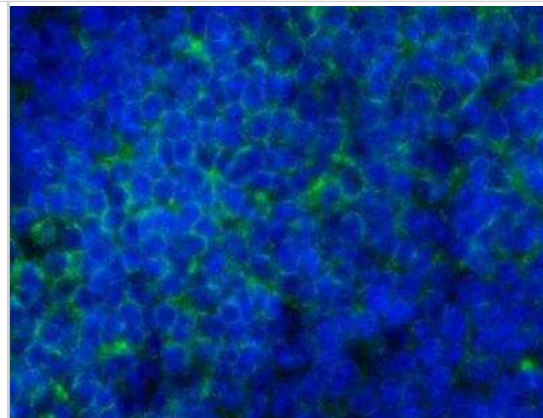
Immunohistochemistry-Paraffin: CD45 Antibody (30-F11) [NB100-77417] - Mouse glomeruli stained with CD45 antibody. 4% formaldehyde fixed paraffin sections. EDTA was used for antigen retrieval. IHC-P image submitted by a verified customer review.



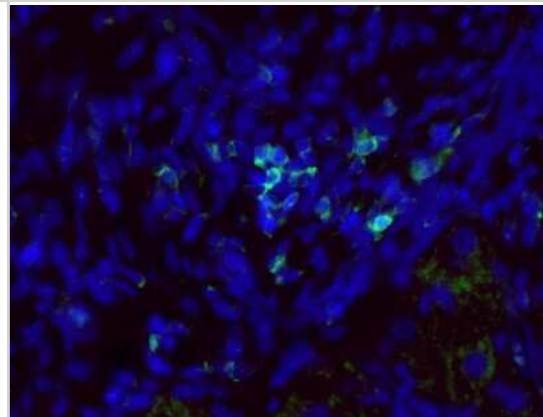
Immunohistochemistry: CD45 Antibody (30-F11) [NB100-77417] - Analysis of a FFPE embedded tissue section of mouse liver using 1:100 dilution of CD45 antibody (30-F11) [NB100-77417]. The signal was developed using AEC reagent based method with hematoxylin counterstaining.



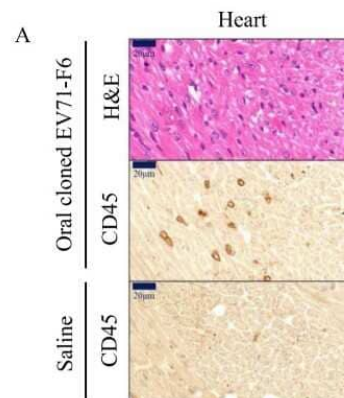
Immunohistochemistry-Frozen: CD45 Antibody (30-F11) [NB100-77417] - Analysis of a mouse spleen cryosection using CD45 antibody (30-F11) [NB100-77417] at 1:50 dilution. The signal was detected using goat anti-rat Alexa fluor 488 secondary with DAPI counterstaining. IHC-P image submitted by a verified customer review.



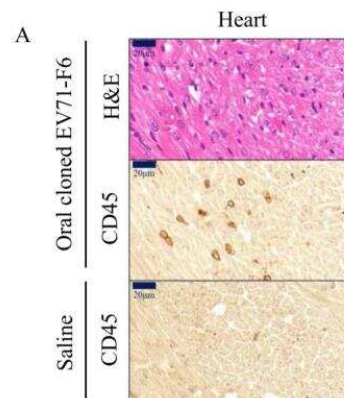
Immunohistochemistry-Paraffin: CD45 Antibody (30-F11) [NB100-77417] - Staining of a FFPE mouse liver tissue section using 1:100 dilution of CD45 antibody (30-F11) [NB100-77417]. Signal was detected using AF488 conjugated donkey anti-rat secondary antibody at 1:500 dilution. IHC-P image submitted by a verified customer review.



Immunohistochemistry: CD45 Antibody (30-F11) [NB100-77417] - Severe apoptosis and pathology in the orally infected heart. Experimental design is as outlined in Fig. 1B. Heart sections from moribund mice were examined with H&E, and immunohistochemistry staining for pan-leukocyte infiltration using an anti-CD45 antibody. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-019-47455-3>), licensed under a CC-BY license.

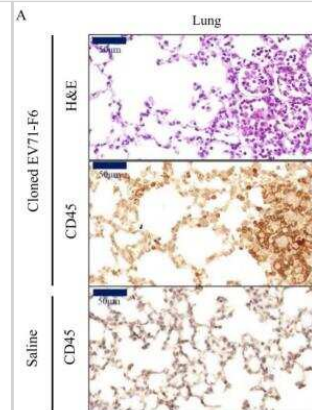


Immunohistochemistry: CD45 Antibody (30-F11) [NB100-77417] - Severe apoptosis and pathology in the orally infected heart. Experimental design is as outlined in Fig. 1B. Heart sections from moribund mice were examined with H&E, and immunohistochemistry staining for pan-leukocyte infiltration using an anti-CD45 antibody. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-019-47455-3>), licensed under a CC-BY license.





Immunohistochemistry: CD45 Antibody (30-F11) [NB100-77417] - VP1-positive infiltrating M2 macrophage and VP1-positive pneumocytes were detectable in the orally infected lung. Adjacent lung sections were examined with H&E and IHC staining for a pan-leukocyte marker CD45. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/s41598-019-47455-3>), licensed under a CC-BY license.



## Publications

Li B, Luan S, Chen J et al. The MSC-Derived Exosomal lncRNA H19 Promotes Wound Healing in Diabetic Foot Ulcers by Upregulating PTEN via MicroRNA-152-3p Molecular Therapy - Nucleic Acids 2020-03-06 [PMID: 31958697] (Flow Cytometry)

Andreas Frøslev Mathisen, Ulrik Larsen, Natalie Kavli, Lucas Unger, Laura Maria Daian, Andrei Mircea Vacaru, Ana-Maria Vacaru, Pedro Luis Herrera, Luiza Ghila, Simona Chera Moderate beta-cell ablation triggers synergic compensatory mechanisms even in the absence of overt metabolic disruption Communications Biology 2024-07-09 [PMID: 38982170]

Yang M, Ong J, Meng F et al. Spatiotemporal insight into early pregnancy governed by immune-featured stromal cells Cell 2023-09-07 [PMID: 37699390]

Condiff EK The Role of Laminin in a Model of Maternal Antiviral Immune Activation During Early Placental Development Thesis 2023-01-01

Klak M, Wszo?a M, Berman A et al. Bioprinted 3D Bionic Scaffolds with Pancreatic Islets as a New Therapy for Type 1 Diabetes-Analysis of the Results of Preclinical Studies on a Mouse Model Journal of functional biomaterials 2023-07-14 [PMID: 37504866] (IHC, Mouse)

Pei G, Yang L, Liu B et al. Sensory nerves directly promote osteoclastogenesis by secreting Peptidyl-prolyl cis-trans isomerase D (Cyp40) Research Square 2023-05-08 (IHC-Fr, Mouse)

Details:  
IHC-Fr 1:100

Reches G, Blondheim Shraga NR, Carrette F et al. Resolving the conflicts around Par2 opposing roles in regeneration by comparing immune-mediated and toxic-induced injuries Inflammation and regeneration 2022-11-29 [PMID: 36447218] (IHC-P, Mouse)

Chen BY Image-guided therapeutic intervention in autoimmune diseases Thesis 2022-01-01 (IF/IHC, Mouse)

Wu M, Yu Z, Matar DY et al. Human Amniotic Membrane Promotes Angiogenesis in an Oxidative Stress Chronic Diabetic Murine Wound Model Advances in wound care 2022-03-16 [PMID: 35293255] (IF/IHC, Mouse)

Wutschka J, Kast B, Sator-Schmitt M Et al. JUNB suppresses distant metastasis by influencing the initial metastatic stage Clin Exp Metastasis 2021-07-20 [PMID: 34282521] (WB, Mouse)

Pei G, Yang L, Li J Et al. Sensory nerves directly promote osteoclastogenesis by secreting Cyp40 Research Square 2021-11-23 (IF/IHC, Rat)

George KK, Heithoff BP, Shandra O, Robel S Mild traumatic brain injury/ concussion initiates an atypical astrocyte response caused by blood-brain barrier dysfunction Journal of neurotrauma 2021-11-22 [PMID: 34806422]

More publications at <http://www.novusbio.com/NB100-77417>

## Procedures

### Immunohistochemistry-Paraffin Protocol for CD45 Antibody (NB100-77417)

#### Immunohistochemistry-Paraffin Embedded Sections

##### Antigen Unmasking:

Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

##### Staining:

1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.





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### **Products Related to NB100-77417**

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HAF005	Goat anti-Rat IgG Secondary Antibody [HRP]
NBP1-75398	Goat anti-Rat IgG (H+L) Secondary Antibody (Pre-adsorbed)
NBP1-43323-0.5mg	Rat IgG2b Kappa Light Chain Isotype Control (149/10H5)
NB100-77417AF488	CD45 Antibody (30-F11) [Alexa Fluor® 488]

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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