

Product datasheet

Anti-CD20 antibody [EP459Y] ab78237

Recombinant RabMAb

★★★★★ 6 Abreviews 14 References 12 Images

Overview

Product name	Anti-CD20 antibody [EP459Y]
Description	Rabbit monoclonal [EP459Y] to CD20
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt, ICC/IF, WB, IP, IHC-P
Species reactivity	Reacts with: Human, Monkey
Immunogen	Synthetic peptide within Human CD20 aa 250 to the C-terminus (C terminal) conjugated to keyhole limpet haemocyanin. The exact sequence is proprietary.
Positive control	IHC-P: Human B cell lymphoma tissue. Human spleen and tonsil tissue. IP: CD20 IP in Ramos whole cell lysate. WB: Ramos whole cell lysate. ICC/IF: Ramos cells FC: Ramos cells
General notes	

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a [recombinant rabbit monoclonal antibody](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EP459Y
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab78237** in the following tested applications.

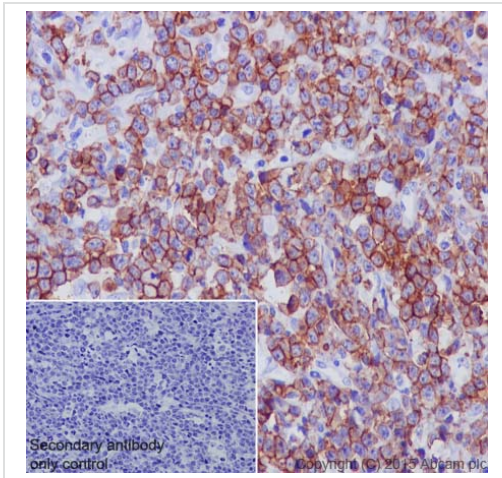
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		1/200. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★☆	1/10.
WB		1/1000 - 1/10000. Detects a band of approximately 33 kDa (predicted molecular weight: 33 kDa).
IP		1/20.
IHC-P	★★★★★	1/50 - 1/250.

Target

Function	This protein may be involved in the regulation of B-cell activation and proliferation.
Tissue specificity	Expressed on B-cells.
Involvement in disease	Defects in MS4A1 are the cause of immunodeficiency common variable type 5 (CVID5) [MIM:613495]; also called antibody deficiency due to CD20 defect. CVID5 is a primary immunodeficiency characterized by antibody deficiency, hypogammaglobulinemia, recurrent bacterial infections and an inability to mount an antibody response to antigen. The defect results from a failure of B-cell differentiation and impaired secretion of immunoglobulins; the numbers of circulating B cells is usually in the normal range, but can be low.
Sequence similarities	Belongs to the MS4A family.
Post-translational modifications	Phosphorylated. Might be functionally regulated by protein kinase(s).
Cellular localization	Membrane.

Images

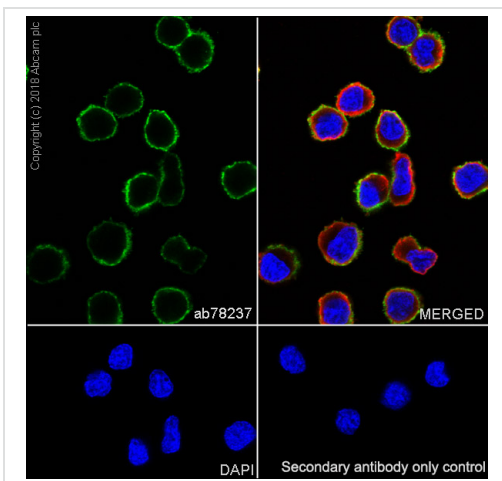


Immunohistochemical staining of paraffin embedded human B cell lymphoma with purified ab78237 at a working dilution of 1/50.

The secondary antibody used is [ab97051](#), a goat anti-rabbit IgG (H&L) at a dilution of 1/500. The sample is counterstained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0.

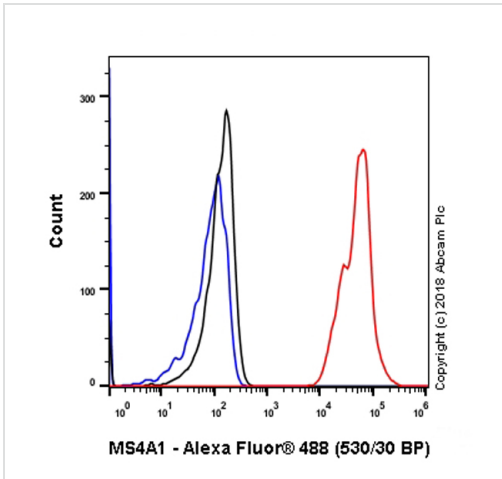
PBS was used instead of the primary antibody as the **negative control**, and is shown in the inset.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD20 antibody [EP459Y] (ab78237)



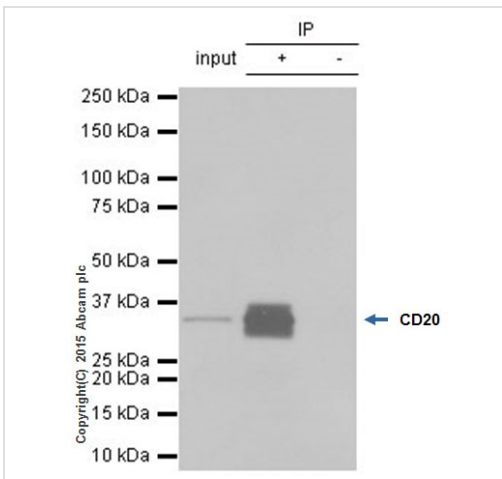
Immunocytochemistry/ Immunofluorescence analysis of Ramos (human Burkitt's lymphoma B lymphocyte) labeling CD20 with purified ab78237 at 1/10 dilution. Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) at 1/1000 was used as the secondary antibody. Cells were counterstained with [ab195889](#), Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200. PBS instead of the primary antibody was used as negative control. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Nuclei were stained with DAPI (blue)

Immunocytochemistry/ Immunofluorescence - Anti-CD20 antibody [EP459Y] (ab78237)



Flow Cytometry - Anti-CD20 antibody [EP459Y]
(ab78237)

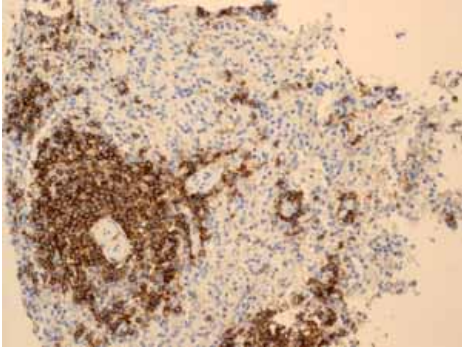
Flow cytometry analysis of Ramos (Human Burkitt's lymphoma B lymphocyte) labeling CD20 with purified ab78237 at 1/200 dilution (Red). Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as secondary antibody. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol.
Isotype control: Rabbit monoclonal IgG (ab172730) (Black)
Unlabelled cells: (Blue)



Immunoprecipitation - Anti-CD20 antibody [EP459Y]
(ab78237)

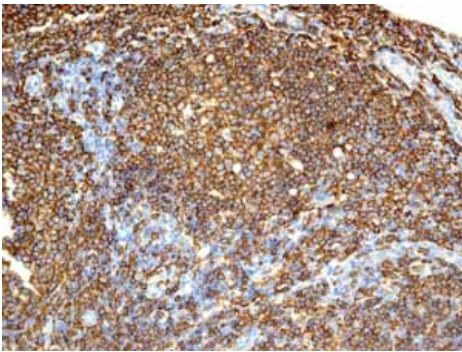
ab78237 (purified) at 1/20 immunoprecipitating CD20 in 10 µg Ramos (Human Burkitt's lymphoma cell line) cell lysate (**Lanes 1 and 2**, observed at 33 kDa). **Lane 3** - Rabbit monoclonal IgG (ab172730). For western blotting, HRP Veriblot for IP (ab131366) was used as the secondary antibody (1/10 000).

Blocking/Dilution buffer and concentration: 5% NFDm/TBST.



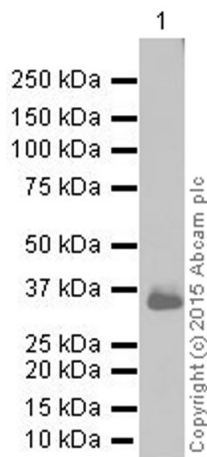
Unpurified ab78237 showing positive staining in human spleen tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD20 antibody [EP459Y] (ab78237)



Unpurified ab78237 showing positive staining in human tonsil tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD20 antibody [EP459Y] (ab78237)



Western blot - Anti-CD20 antibody [EP459Y]
(ab78237)

Anti-CD20 antibody [EP459Y] (ab78237) at 1/10000 dilution
(purified) + Raji (Human Burkitt's lymphoma cell line) whole cell
lysate

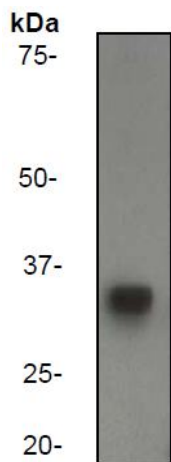
Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 33 kDa

Observed band size: 33 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

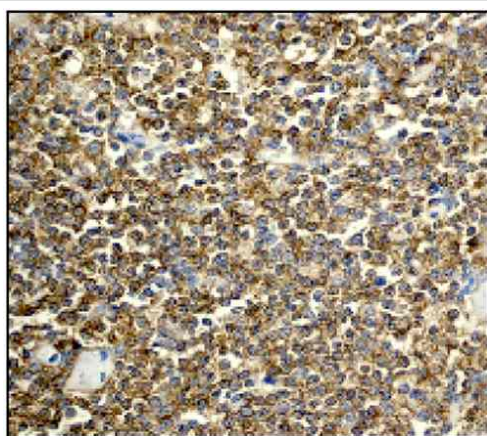


Western blot - Anti-CD20 antibody [EP459Y]
(ab78237)

Anti-CD20 antibody [EP459Y] (ab78237) at 1/5000 dilution
(unpurified) + Raji (Human Burkitt's lymphoma cell line) cell lysate

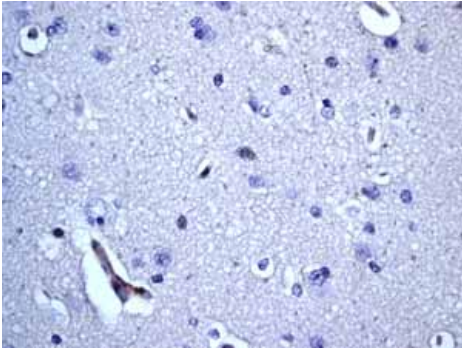
Predicted band size: 33 kDa

Observed band size: 33 kDa



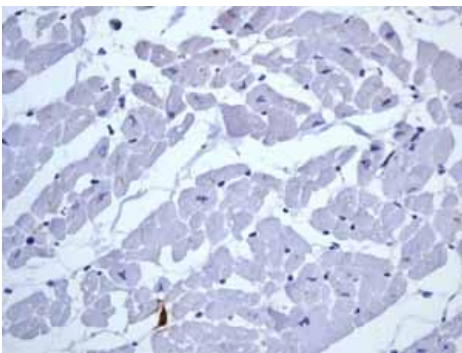
Immunohistochemistry (Formalin/PFA-fixed paraffin-
embedded sections) - Anti-CD20 antibody [EP459Y]
(ab78237)

Unpurified ab78237 staining human CD20 in human lymphoma
tissue by immunohistochemistry using formalin fixed, paraffin
embedded tissue.



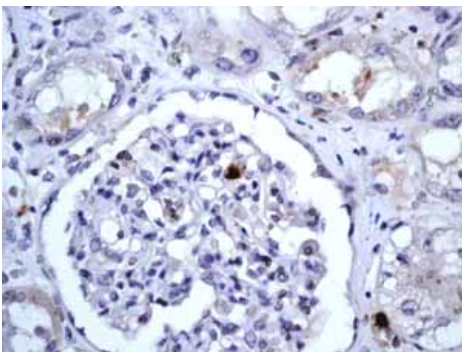
Unpurified ab78237 showing **negative staining** in human brain tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD20 antibody [EP459Y] (ab78237)



Unpurified ab78237 showing **negative staining** in human heart tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD20 antibody [EP459Y] (ab78237)



Unpurified ab78237 showing **negative staining** in human kidney tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD20 antibody [EP459Y] (ab78237)

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