abcam

Product datasheet

Anti-CD22 antibody [EPR20061] ab207727

Recombinant RabMAb

★★★★☆ **2 Abreviews**   10 Images

Overview

Product name	Anti-CD22 antibody [EPR20061]
Description	Rabbit monoclonal [EPR20061] to CD22
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Ramos, Daudi and Raji whole cell lysates; Human tonsil and fetal spleen lysates. IHC-P: Human spleen and tonsil tissues. ICC/IF: Daudi and Raji cells. IP: Human tonsil lysate; Raji whole cell lysate.

General notes

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information **see here**.

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

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20061

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Isotype	IgG

Applications

The Abpromise guarantee   Our **Abpromise guarantee** covers the use of ab207727 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
WB		1/1000. Detects a band of approximately 130 kDa (predicted molecular weight: 95 kDa).
IHC-P	★★★★☆ (2)	1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/100.
IP		1/30.

Target

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Function	Mediates B-cell B-cell interactions. May be involved in the localization of B-cells in lymphoid tissues. Binds sialylated glycoproteins; one of which is CD45. Preferentially binds to alpha-2,6-linked sialic acid. The sialic acid recognition site can be masked by cis interactions with sialic acids on the same cell surface. Upon ligand induced tyrosine phosphorylation in the immune response seems to be involved in regulation of B-cell antigen receptor signaling. Plays a role in positive regulation through interaction with Src family tyrosine kinases and may also act as an inhibitory receptor by recruiting cytoplasmic phosphatases via their SH2 domains that block signal transduction through dephosphorylation of signaling molecules.
Tissue specificity	B-lymphocytes.
Sequence similarities	Belongs to the immunoglobulin superfamily. SIGLEC (sialic acid binding Ig-like lectin) family. Contains 6 Ig-like C2-type (immunoglobulin-like) domains. Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Domain	Contains 4 copies of a cytoplasmic motif that is referred to as the immunoreceptor tyrosine-based inhibitor motif (ITIM). This motif is involved in modulation of cellular responses. The phosphorylated ITIM motif can bind the SH2 domain of several SH2-containing phosphatases.
Post-translational modifications	Phosphorylation of Tyr-762, Tyr-807 and Tyr-822 are involved in binding to SYK, GRB2 and SYK, respectively. Phosphorylation of Tyr-842 is involved in binding to SYK, PLCG2 and PIK3R1/PIK3R2. Phosphorylated on tyrosine residues by LYN.
Cellular localization	Cell membrane.

Images
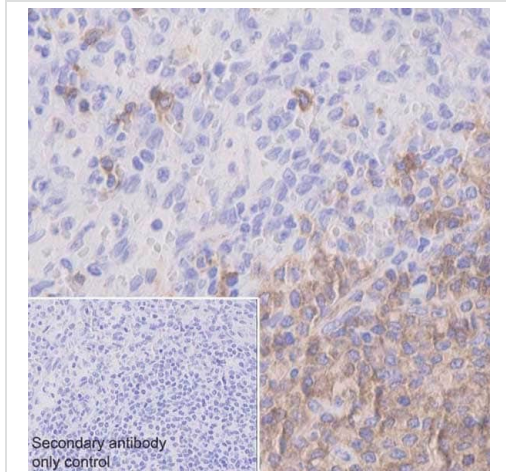
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD22 antibody [EPR20061] (ab207727)

Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling CD22 with ab207727 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Membranous and cytoplasmic staining on B cells of human spleen [PMID: 11967115]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
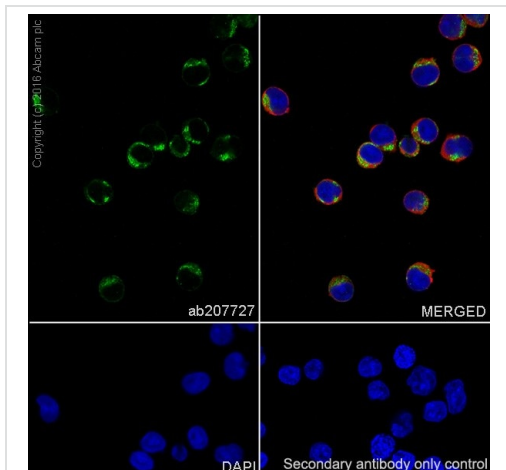

Immunocytochemistry/ Immunofluorescence - Anti-CD22 antibody [EPR20061] (ab207727)

Immunofluorescent analysis of 100% methanol-fixed Daudi (Human Burkitt's lymphoma cell line) cells labeling CD22 with ab207727 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on Daudi cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with **ab195889** (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) at 1/1000 dilution.

Western blot - Anti-CD22 antibody [EPR20061] (ab207727)
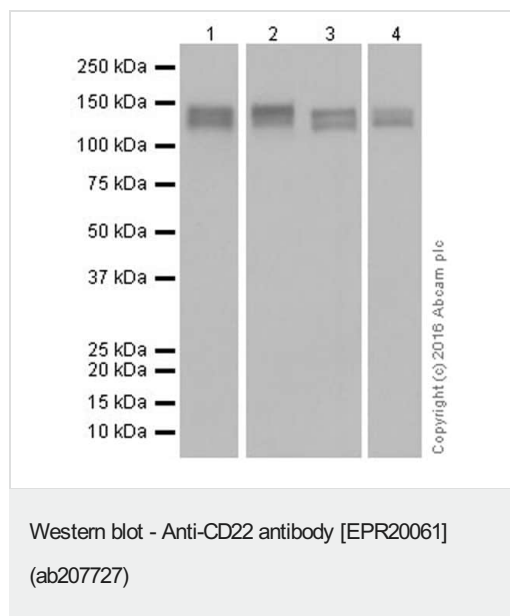
Lanes 1 & 4 : Anti-CD22 antibody [EPR20061] (ab207727) at 1/2000 dilution

Lanes 2-3 : Anti-CD22 antibody [EPR20061] (ab207727) at 1/10000 dilution

Lane 1 : Ramos (Human Burkitt's lymphoma cell line) whole cell lysate

Lane 2 : Daudi (Human Burkitt's lymphoma cell line) whole cell lysate

Lane 3 : Raji (Human Burkitt's lymphoma cell line) whole cell lysate

Lane 4 : Human tonsil lysate

Lysates/proteins at 20 µg per lane.

Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 95 kDa

Observed band size: 130 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure times: Lane 1: 3 seconds; Lane 2/3: 1 second; Lane 4: 8 seconds.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 24264377 & 21178016).

Immunoprecipitation - Anti-CD22 antibody [EPR20061] (ab207727)
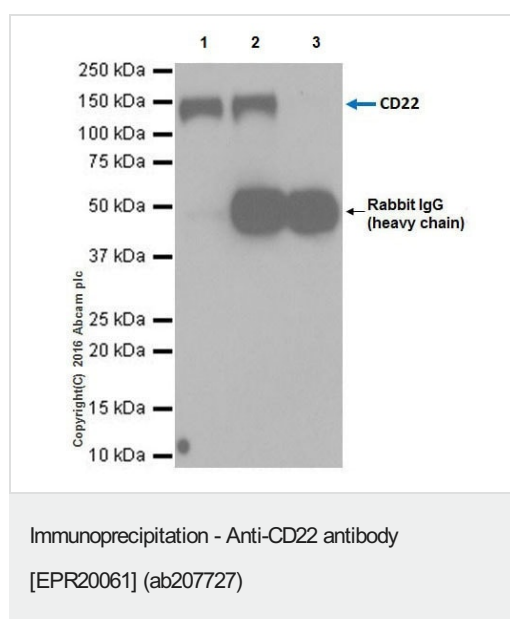
CD22 was immunoprecipitated from 0.35 mg of Human tonsil lysate with ab207727 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab207727 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.
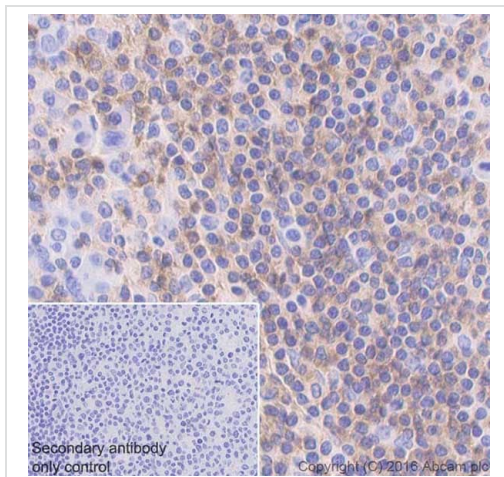
Lane 1: Human tonsil lysate, 10 µg (Input).

Lane 2: ab207727 IP in Human tonsil lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab207727 in Human tonsil lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD22 antibody [EPR20061] (ab207727)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling CD22 with ab207727 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution. Membranous and cytoplasmic staining on B cells of human tonsil [PMID: 11967115]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
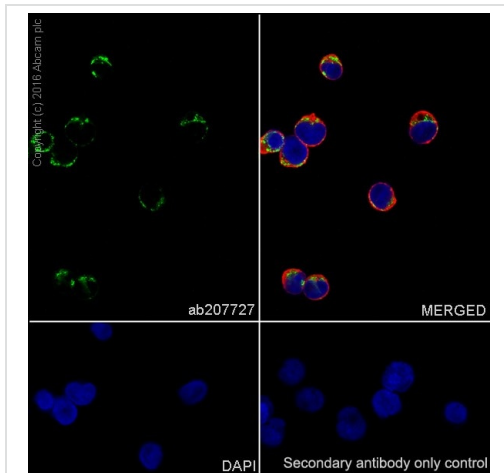

Immunocytochemistry/ Immunofluorescence - Anti-CD22 antibody [EPR20061] (ab207727)

Immunofluorescent analysis of 100% methanol-fixed Raji (Human Burkitt's lymphoma cell line) cells labeling CD22 with ab207727 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor$^®$ 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on Raji cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with **ab195889** (Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor$^®$ 594)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-rabbit IgG (Alexa Fluor$^®$ 488) (**ab150077**) at 1/1000 dilution.
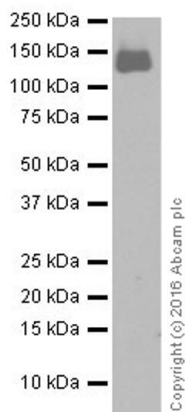
Western blot - Anti-CD22 antibody [EPR20061] (ab207727)

Anti-CD22 antibody [EPR20061] (ab207727) at 1/1000 dilution + Human fetal spleen lysate at 10 µg

Secondary

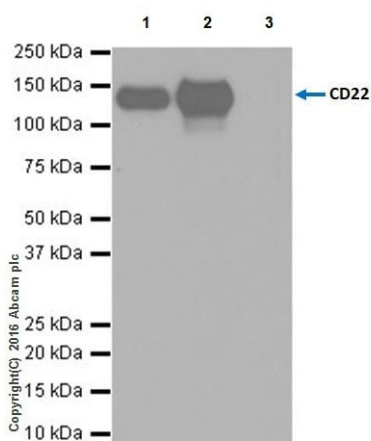VeriBlot for IP Detection Reagent (HRP) (**ab131366**) at 1/4000 dilution

Predicted band size: 95 kDa

Observed band size: 130 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 24264377 & 21178016).

Immunoprecipitation - Anti-CD22 antibody [EPR20061] (ab207727)

CD22 was immunoprecipitated from 0.35 mg of Raji (Human Burkitt's lymphoma cell line) whole cell lysate with ab207727 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab207727 at 1/2000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.
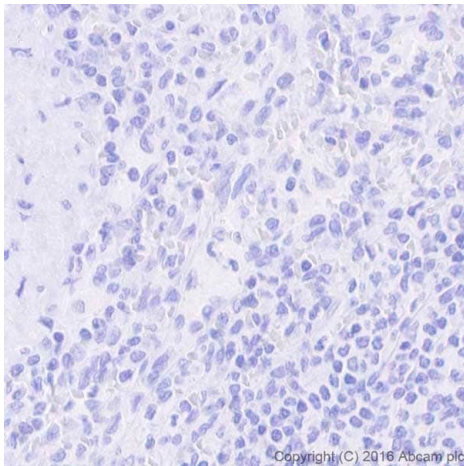
Lane 1: Raji whole cell lysate, 10 µg (Input).

Lane 2: ab207727 IP in Raji whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab207727 in Raji whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 10 seconds.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD22 antibody [EPR20061] (ab207727)

Immunohistochemical analysis of paraffin-embedded human thymoma tissue labeling CD22 with ab207727 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Negative control: no staining on human thymoma [PMID: 11967115].

Counter stained with Hematoxylin.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-CD22 antibody [EPR20061] (ab207727)

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