abcam

Product datasheet

Anti-CD33 antibody [EPR24370-124] - BSA and Azide free ab281568

KO VALIDATED Recombinant RabMAb

2 Abreviews 9 Images

Overview

Product name	Anti-CD33 antibody [EPR24370-124] - BSA and Azide free
Description	Rabbit monoclonal [EPR24370-124] to CD33 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB **Unsuitable for:** Flow Cyt,ICC/IF or IP
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: THP-1, HL-60, TF-1 lysates. IHC-P: Human colon, liver, tonsil, Hodgkin's lymphoma and clear renal carcinoma tissues.
General notes	**Please Note**: Clone [EPR24370-124] (this product) is different to that of **ab199432** [SP266] for the same target. ab281568 is the carrier-free version of **ab270942**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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.
Storage buffer	Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR24370-124
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab281568 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
IHC-P	★★★★★ (2)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 40 kDa.

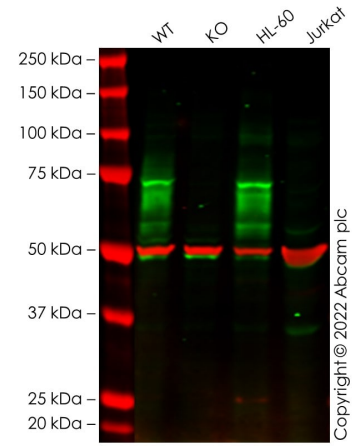
Application notes Is unsuitable for Flow Cyt,ICC/IF or IP.

Target

Function	Putative adhesion molecule of myelomonocytic-derived cells that mediates sialic-acid dependent binding to cells. Preferentially binds to alpha-2,6-linked sialic acid. The sialic acid recognition site may be masked by cis interactions with sialic acids on the same cell surface. In the immune response, may act as an inhibitory receptor upon ligand induced tyrosine phosphorylation by recruiting cytoplasmic phosphatase(s) via their SH2 domain(s) that block signal transduction through dephosphorylation of signaling molecules. Induces apoptosis in acute myeloid leukemia (in vitro).
Tissue specificity	Monocytic/myeloid lineage cells.
Sequence similarities	Belongs to the immunoglobulin superfamily. SIGLEC (sialic acid binding Ig-like lectin) family. Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 1 Ig-like V-type (immunoglobulin-like) domain.
Domain	Contains 2 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-340 is involved in binding to PTPN6 and PTPN11. Phosphorylation of Tyr-358 is involved in binding to PTPN6.
Cellular localization	Cell membrane.

Images



Western blot - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

All lanes : Anti-CD33 antibody [EPR24370-124] (**ab270942**) at 1/1000 dilution

Lane 1 : Wild-type THP-1 cell lysate
Lane 2 : CD33 knockout THP-1 cell lysate
Lane 3 : HL-60 cell lysate
Lane 4 : Jurkat cell lysate

Lysates/proteins at 10 µg per lane.

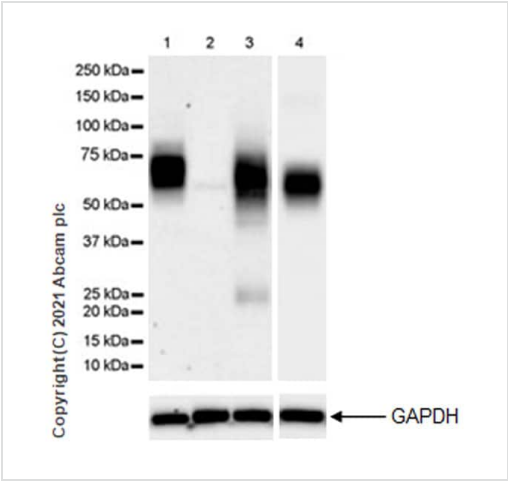
Performed under reducing conditions.

Predicted band size: 40 kDa
Observed band size: 60-80 kDa

This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

False colour image of Western blot: Anti-CD33 antibody [EPR24370-124] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (**ab7291**) loading control staining at 1/20000 dilution, shown in red. In Western blot, **ab270942** was shown to bind specifically to CD33. A band was observed at 60-80 kDa in wild-type THP-1 cell lysates with no signal observed at this size in CD33 knockout cell line **ab273831** (knockout cell lysate **ab273785**). To generate this image, wild-type and CD33 knockout THP-1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000

dilution.



Western blot - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

All lanes : Anti-CD33 antibody [EPR24370-124] (**ab270942**) at 1/1000 dilution

Lane 1 : THP-1 (human monocytic leukemia monocyte) whole cell lysate
Lane 2 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate
Lane 3 : HL-60 (human acute promyelocytic leukemia promyeloblast) whole cell lysate
Lane 4 : TF-1 (human erythroleukemia erythroblast) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/50000 dilution

Predicted band size: 40 kDa
Observed band size: 67-75 kDa

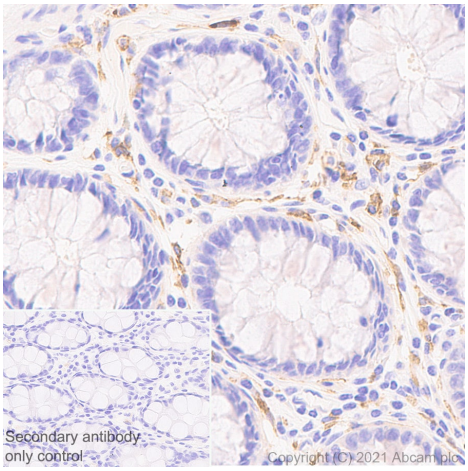
This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

Blocking and diluting buffer and concentration: 5% NFDM/TBST

The expression molecular weight observed is consistent with what has been described in the literature (PMID:16380601, 30519686).

Negative Control: Jurkat (PMID:30519686).

Exposure time: Lanes 1-3:136 seconds; Lane 4:26 seconds.



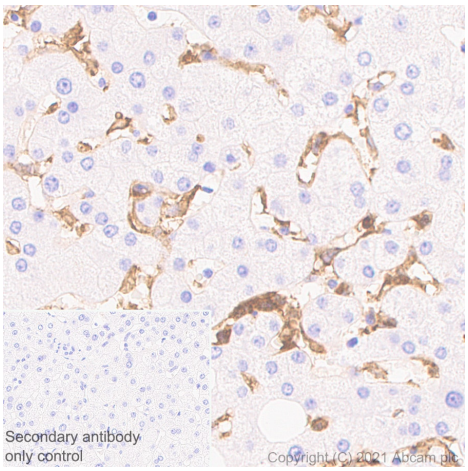
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human colon tissue labelling CD33 with **ab270942** at 1/1000 dilution (0.472 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Membranous and cytoplasmic staining on immune cells of human colon (PMID: 31462392). The section was incubated with **ab270942** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



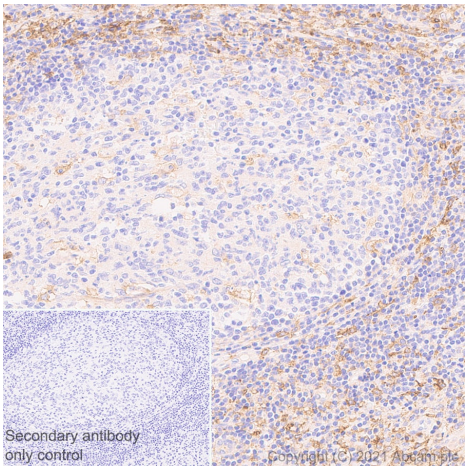
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human liver tissue labelling CD33 with **ab270942** at 1/1000 dilution (0.472 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Membranous and cytoplasmic staining on Kupffer cells of human liver (PMID:25721896). The section was incubated with **ab270942** for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



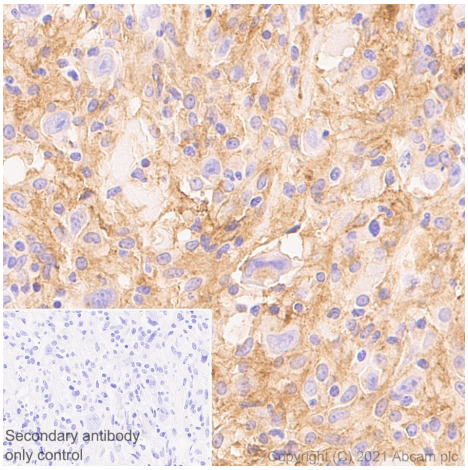
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labelling CD33 with **ab270942** at 1/1000 dilution (0.472 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Membranous and cytoplasmic staining in human tonsil. The section was incubated with **ab270942** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



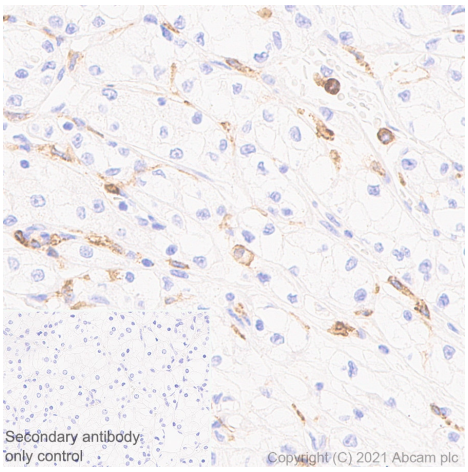
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human Hodgkin's lymphoma tissue labelling CD33 with **ab270942** at 1/1000 dilution (0.472 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Membranous and cytoplasmic staining in human Hodgkin's lymphoma. The section was incubated with **ab270942** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



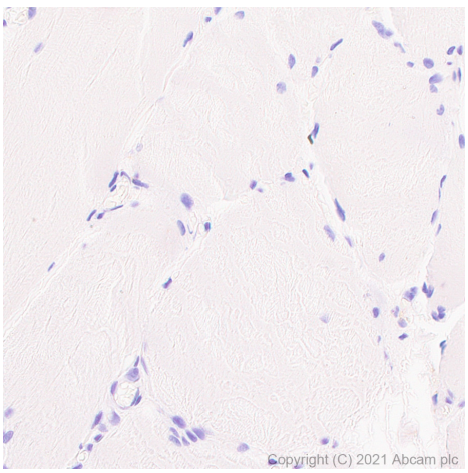
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human clear cell renal cell carcinoma tissue labelling CD33 with **ab270942** at 1/1000 dilution (0.472 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Membranous and cytoplasmic staining on scattered cells of human clear cell renal cell carcinoma. The section was incubated with **ab270942** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



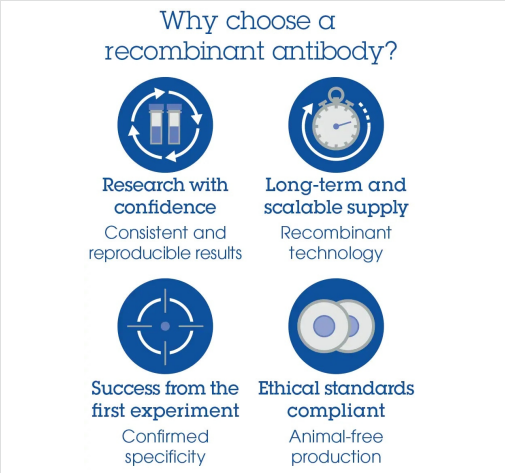
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

This data was developed using **ab270942**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human skeletal muscle tissue labelling CD33 with **ab270942** at 1/1000 dilution (0.472 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). **Negative control**: No staining in human skeletal muscle. The section was incubated with **ab270942** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Anti-CD33 antibody [EPR24370-124] - BSA and Azide free (ab281568)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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