

## Product datasheet

# Anti-CD276 antibody [EPR20115] - BSA and Azide free ab227577

**KO VALIDATED** Recombinant RabMAb

8 Images

### Overview

<b>Product name</b>	Anti-CD276 antibody [EPR20115] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR20115] to CD276 - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment aa 1-400. The exact sequence is proprietary. Database link: <a href="#">Q5ZPR3</a>
<b>Positive control</b>	WB: LNCaP, U-2OS, PC-3, 293T and MDA-MB-435S whole cell lysates; Human lung, skin and placenta lysates. IHC-P: Human tonsil, placenta, hepatocellular carcinoma, lung carcinoma and breast cancer tissues.
<b>General notes</b>	Ab227577 is the carrier-free version of <a href="#">ab219648</a> . This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

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.

ab227577 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

*Maxpar® is a trademark of Fluidigm Canada Inc.*

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR20115
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab227577** 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		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. Detects a band of approximately 90-110 kDa (predicted molecular weight: 57 kDa).

## Target

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<b>Function</b>	May participate in the regulation of T-cell-mediated immune response. May play a protective role in tumor cells by inhibiting natural-killer mediated cell lysis as well as a role of marker for detection of neuroblastoma cells. May be involved in the development of acute and chronic transplant rejection and in the regulation of lymphocytic activity at mucosal surfaces. Could also play a key role in providing the placenta and fetus with a suitable immunological environment throughout pregnancy. Both isoform 1 and isoform 2 appear to be redundant in their ability to modulate CD4
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T-cell responses. Isoform 2 is shown to enhance the induction of cytotoxic T-cells and selectively stimulates interferon gamma production in the presence of T-cell receptor signaling.

### Tissue specificity

Ubiquitous but not detectable in peripheral blood lymphocytes or granulocytes. Weakly expressed in resting monocytes. Expressed in dendritic cells derived from monocytes. Expressed in epithelial cells of sinonasal tissue. Expressed in extravillous trophoblast cells and Hofbauer cells of the first trimester placenta and term placenta.

### Sequence similarities

Belongs to the immunoglobulin superfamily. BTN/MOG family.

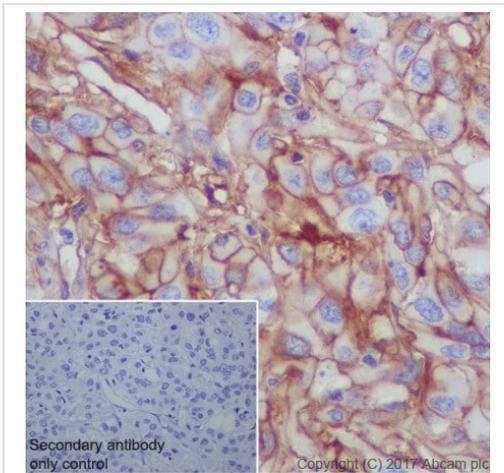
Contains 2 Ig-like C2-type (immunoglobulin-like) domains.

Contains 2 Ig-like V-type (immunoglobulin-like) domains.

### Cellular localization

Membrane.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma tissue labeling CD276 with [ab219648](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

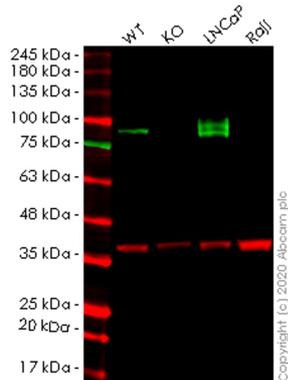
Membranous staining on human hepatocellular carcinoma is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab219648](#)).

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



Western blot - Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

**All lanes** : Anti-CD276 antibody [EPR20115] ([ab219648](#)) at 1/1000 dilution

**Lane 1** : Wild-type HEK293T cell lysate

**Lane 2** : CD276 knockout HEK293T cell lysate

**Lane 3** : LNCaP cell lysate

**Lane 4** : Raji cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes** : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution

**Predicted band size:** 57 kDa

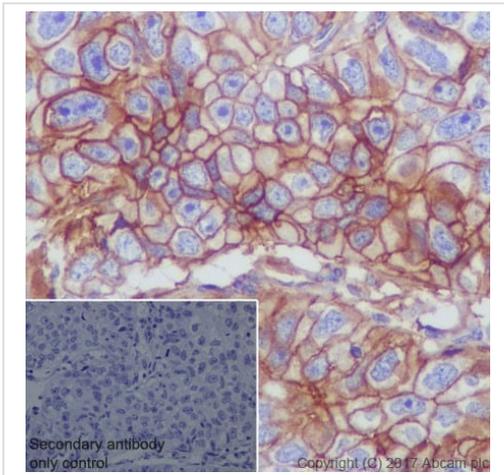
**Observed band size:** 90-110 kDa

[why is the actual band size different from the predicted?](#)

This data was developed using the same antibody clone in a different buffer formulation ([ab219648](#)).

**Lanes 1-4:** Merged signal (red and green). Green - [ab219648](#) observed at 90-110 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

[ab219648](#) Anti-CD276 antibody [EPR20115] was shown to specifically react with CD276 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line [ab266658](#) (knockout cell lysate [ab257097](#)) was used. Wild-type and CD276 knockout samples were subjected to SDS-PAGE. [ab219648](#) and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue labeling CD276 with [ab219648](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

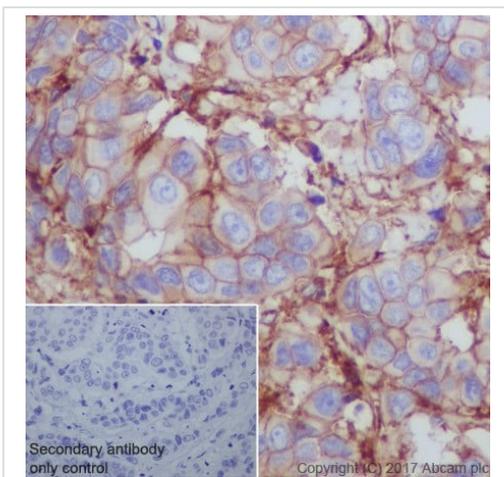
Membranous staining on human lung carcinoma is observed [PMID: 25609202].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab219648](#)).

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling CD276 with [ab219648](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

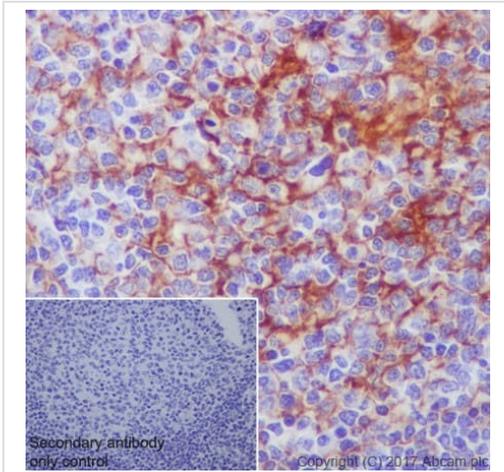
Membranous and cytoplasmic staining on human breast cancer tumor cells and stromal cells is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab219648](#)).

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

This IHC data was generated using the same anti-CD276 antibody clone, EPR20115, in a different buffer formulation (cat# [ab219648](#)).

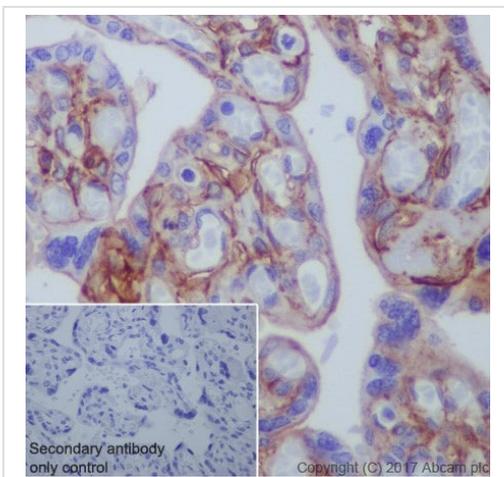
Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling CD276 with [ab219648](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Membranous staining on dendritic cells of human tonsil is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

This IHC data was generated using the same anti-CD276 antibody clone, EPR20115, in a different buffer formulation (cat# [ab219648](#)).

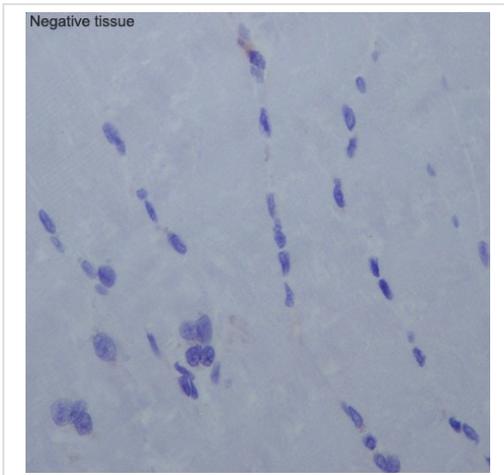
Immunohistochemical analysis of paraffin-embedded human placenta tissue labeling CD276 with [ab219648](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Cytoplasmic and membranous staining on vascular endothelial cells and trophoblast cells of human placenta is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

Immunohistochemical analysis of paraffin-embedded human skeletal muscle tissue labeling CD276 with [ab219648](#) at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

**Negative tissue:** no staining on human skeletal muscle. [PMID: 18975328].

Counter stained with Hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab219648](#)).

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

Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

Anti-CD276 antibody [EPR20115] - BSA and Azide free (ab227577)

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

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