abcam

Product datasheet

Anti-CD11b antibody [EPR1344] ab133357

Recombinant RabMAb

34 Abreviews 278 References 16 Images

Overview

Product name	Anti-CD11b antibody [EPR1344]
Description	Rabbit monoclonal [EPR1344] to CD11b
Host species	Rabbit
Tested applications	**Suitable for:** mIHC, WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Pig, Rhesus monkey
Immunogen	Synthetic peptide within Human CD11b aa 1-100. The exact sequence is proprietary. Database link: **P11215**
Positive control	WB: THP1 cell lysate treated with TPA, and TF1 cell lysate; Rat spleen lysate IHC-P: Human tonsil and spleen tissues; Rat cerebrum and bone marrow tissue; Mouse lung and colon tissue. mIHC: Mouse spleen tissue.
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: 40% Glycerol, 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal

Clone number	EPR1344
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab133357 in the following tested applications.

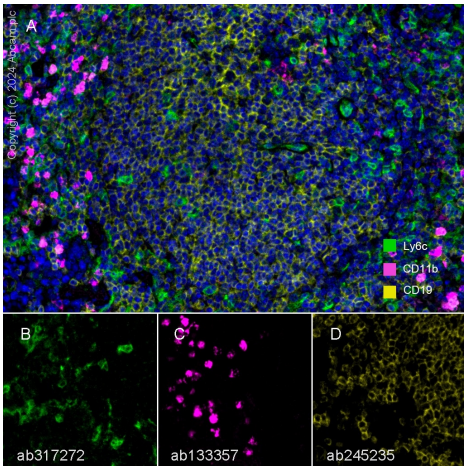
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
mIHC		Use at an assay dependent concentration.
WB	★★★★☆ (4)	1/1000. Predicted molecular weight: 127 kDa.
IHC-P	★★★★☆ (17)	1/4000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Please optimize IHC protocol when testing mouse and rat tissues. It is easy to show background staining in liver tissue.

Target

Function	Integrin alpha-M/beta-2 is implicated in various adhesive interactions of monocytes, macrophages and granulocytes as well as in mediating the uptake of complement-coated particles. It is identical with CR-3, the receptor for the iC3b fragment of the third complement component. It probably recognizes the R-G-D peptide in C3b. Integrin alpha-M/beta-2 is also a receptor for fibrinogen, factor X and ICAM1. It recognizes P1 and P2 peptides of fibrinogen gamma chain.
Tissue specificity	Predominantly expressed in monocytes and granulocytes.
Involvement in disease	Genetic variations in ITGAM has been associated with susceptibility to systemic lupus erythematosus type 6 (SLEB6) [MIM:609939]. Systemic lupus erythematosus (SLE) is a chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. It is thought to represent a failure of the regulatory mechanisms of the autoimmune system.
Sequence similarities	Belongs to the integrin alpha chain family. Contains 7 FG-GAP repeats. Contains 1 VWFA domain.
Domain	The integrin I-domain (insert) is a VWFA domain. Integrins with I-domains do not undergo protease cleavage.
Cellular localization	Membrane.

Images



Multiplex immunohistochemistry - Anti-CD11b antibody [EPR1344] (ab133357)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse spleen labelling LY6C with **ab317272** at 1/100 (B), CD11b with ab133357 at 1/20000 dilution (C) and CD19 with **ab245235** at 1/1000 dilution(D). Opal Polymer HRP Ms + Rb was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-LY6C (green; Opal™690), anti-CD11b (magenta; Opal™570) and anti-CD19 (yellow; Opal™520) on mouse spleen.

Panel B: anti-LY6C stained on monocytes/macrophages.

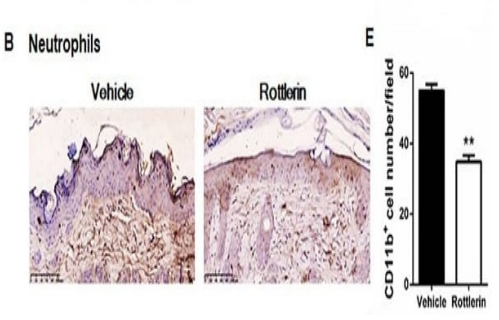
Panel C: anti-CD11b stained on monocytes/macrophages.

Panel D: anti-CD19 stained on B cells.

Co-staining of LY6C and CD11b can be observed.

The section was incubated in three rounds of staining: in the order of **ab317272**, ab133357, and **ab245235** for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



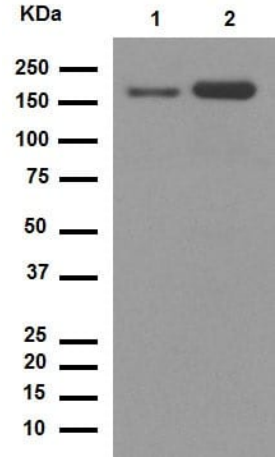
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

Rottlerin decreases the number of effector cells that mainly infiltrate the skin in IMQ-treated mice

Immunohistochemical detection of immune cell-related markers was performed on paraffin-embedded sections obtained from the back skin of IMQ-induced mice treated with vehicle or rottlerin.

Representatives IHC images of CD11b (B) on the skin of the vehicle or rottlerin-treated mice. Scale bar = 100μm.

Quantification analysis of IHC staining for CD11b(E) on the skin of the vehicle and rottlerin treated mice. Two independent researchers counted the number of positive staining cells were per high-power field (HPF). The data are representative of three experiments (n = 5 mice per group). ** P<0.01 vs. vehicle.



Western blot - Anti-CD11b antibody [EPR1344] (ab133357)

All lanes : Anti-CD11b antibody [EPR1344] (ab133357) at 1/1000 dilution (purified)

Lane 1 : TF-1 cell lysate
Lane 2 : TPA treated THP-1 cell lysate

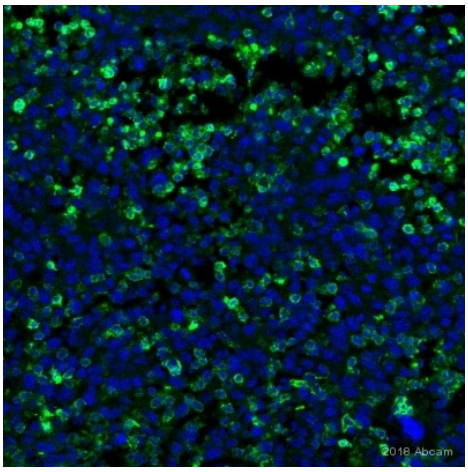
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 127 kDa
Observed band size: 170 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

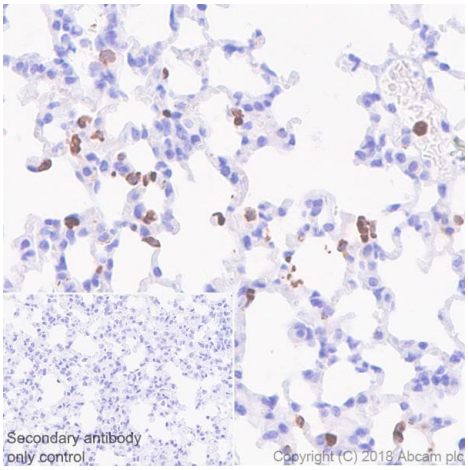


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

This image is courtesy of an abreview from Anugraha Rajagopalan

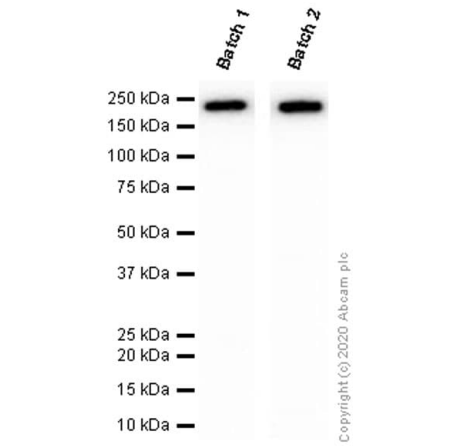
Formalin-fixed, 0.2% Triton-X permeabilized Mouse tissue sections (Eo771 breast cancer) was stained for CD11b using ab133357 (Green) at 1/1000 dilution in immunohistochemical analysis. The secondary antibody was a Alexa Fluor® 488 Goat anti-Rabbit IgG (H+L) at 1/1000 dilution.

BSA as blocking agent for 1 hour(s) and 0 minute(s) · Concentration: 4% · Temperature: 25°C



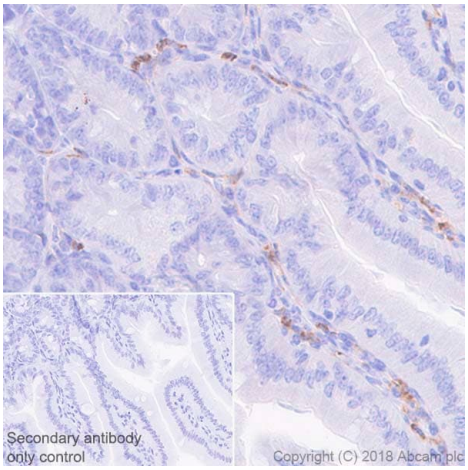
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

Ab133357 staining CD11b in paraffin embedded Mouse lung tissue sections by Immunohistochemistry. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Samples were incubated with primary antibody at 1/4000 dilution (0.031 µg/ml). A ready to use Goat Anti-rabbit IgG H&L (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on stromal cells of mouse lung.



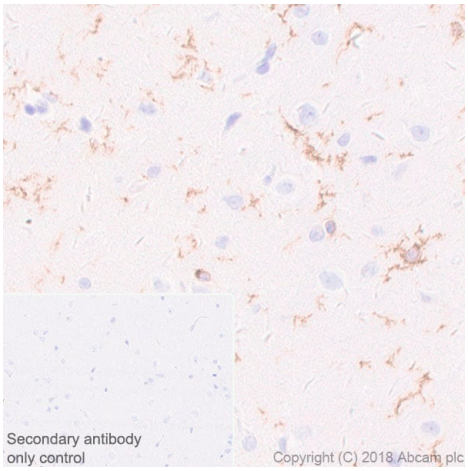
Western blot - Anti-CD11b antibody [EPR1344] (ab133357)

Different batches of ab133357 were tested on Rat spleen lysate at 0.1 µg/ml. 15 µg of lysate was loaded in each lane. Bands observed at 170 kDa.



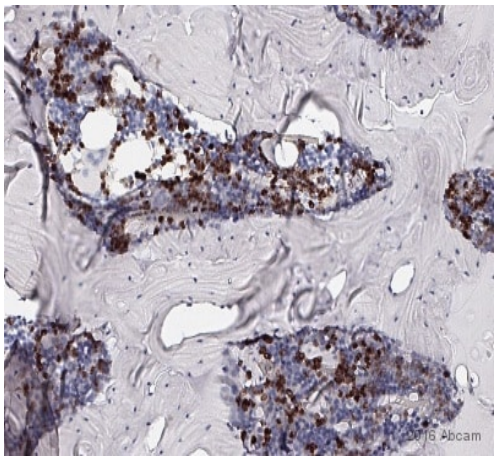
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

Ab133357 staining CD11b in paraffin embedded Mouse colon tissue sections by Immunohistochemistry. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Samples were incubated with primary antibody at 1/4000 dilution (0.031 µg/ml). A ready to use Goat Anti-rabbit IgG H&L (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on stromal cells of mouse colon.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

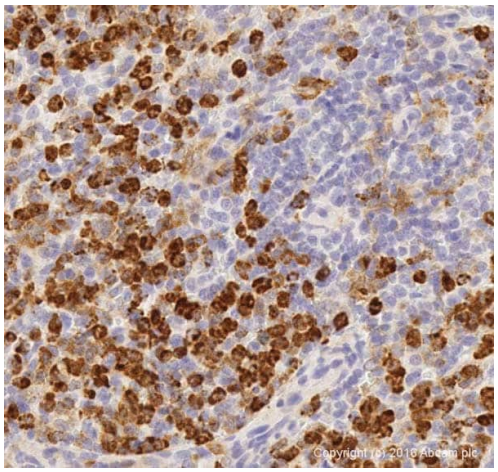
Ab133357 staining CD11b in paraffin embedded Rat cerebrum tissue sections by Immunohistochemistry. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Samples were incubated with primary antibody at 1/4000 dilution (0.29 µg/ml). A ready to use Goat Anti-rabbit IgG H&L (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on gliocytes of rat cerebrum [PMID: 20483006].



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

Formaldehyde-fixed, paraffin-embedded rat bone marrow tissue stained for CD11b using ab133357 at 1/5000 in immunohistochemical analysis.

Heat mediated antigen retrieval with EDTA buffer pH 9 was performed before commencing with staining protocol. 1% casein was used as blocking agent.

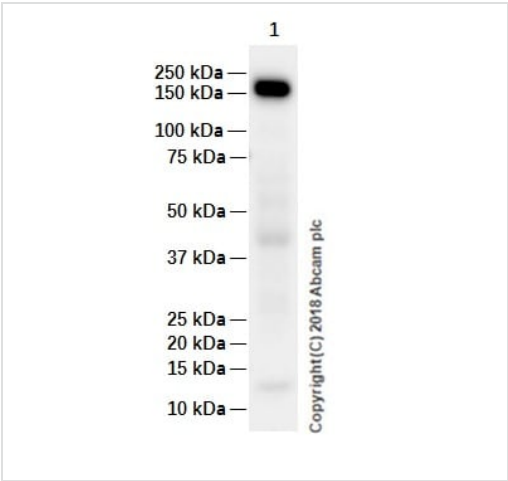


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

IHC image of CD11b staining in a formalin fixed, paraffin embedded human normal spleen tissue section*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab133357 at 1/4000 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - Anti-CD11b antibody [EPR1344] (ab133357)

Anti-CD11b antibody [EPR1344] (ab133357) at 1/1000 dilution + Rat spleen tissue lysate at 20 µg

Secondary

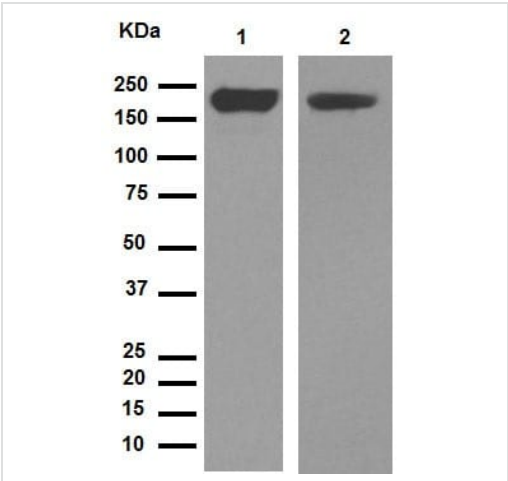
Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

Predicted band size: 127 kDa

Observed band size: 170 kDa

Exposure time: 8 seconds

Blocking and diluting buffer: 5% NFDM/TBST



Western blot - Anti-CD11b antibody [EPR1344] (ab133357)

All lanes : purified at 1/10000 dilution

Lane 1 : RAW264.7 cell lysate

Lane 2 : Mouse spleen tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

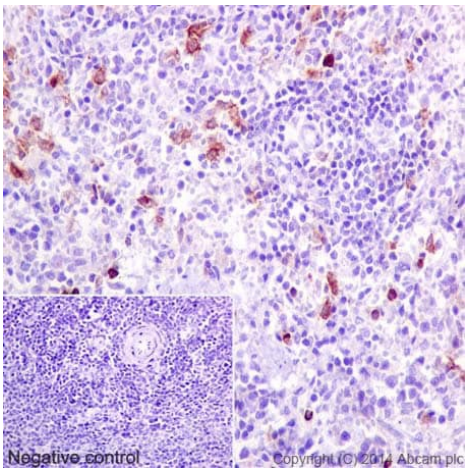
All lanes : HRP goat anti-rabbit (H+L) at 1/1000 dilution

Predicted band size: 127 kDa

Observed band size: 170 kDa

Blocking buffer: 5% NFDM/TBST

Dilution buffer: 5% NFDM/TBST

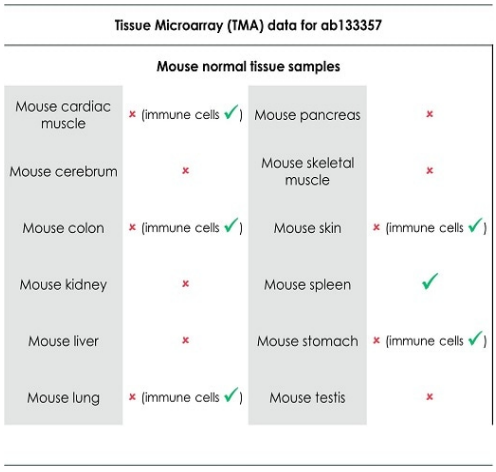


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

Immunohistochemical staining of paraffin embedded human spleen with purified ab133357 at a 1/4000 dilution. The secondary antibody used is a HRP goat anti-rabbit (**ab97051**). The sample is counterstained with hematoxylin.

Antigen retrieval was perfomed 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.



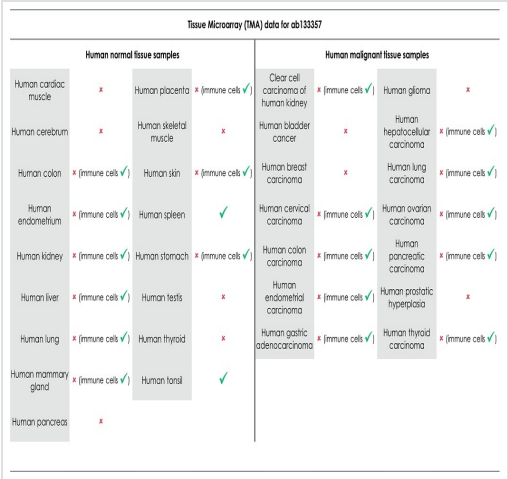
Tissue Microarray (TMA) data for ab133357

Mouse normal tissue samples

Mouse cardiac muscle	× (immune cells ✓)	Mouse pancreas	×
Mouse cerebrum	×	Mouse skeletal muscle	×
Mouse colon	× (immune cells ✓)	Mouse skin	× (immune cells ✓)
Mouse kidney	×	Mouse spleen	✓
Mouse liver	×	Mouse stomach	× (immune cells ✓)
Mouse lung	× (immune cells ✓)	Mouse testis	×

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

Tissue Microarrays stained for "Anti-CD11b antibody [EPR1344]" using "ab133357" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with ab133357 for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Tissue Microarray (TMA) data for ab133357

Human normal tissue samples				Human malignant tissue samples			
Human cardiac muscle	x	Human placenta	x (immune cells ✓)	Clear cell carcinoma of human kidney	x (immune cells ✓)	Human glioma	x
Human cerebrum	x	Human skeletal muscle	x	Human bladder cancer	x	Human hepatocellular carcinoma	x (immune cells ✓)
Human colon	x (immune cells ✓)	Human skin	x (immune cells ✓)	Human breast carcinoma	x	Human lung carcinoma	x (immune cells ✓)
Human endometrium	x (immune cells ✓)	Human spleen	✓	Human cervical carcinoma	x (immune cells ✓)	Human ovarian carcinoma	x (immune cells ✓)
Human kidney	x (immune cells ✓)	Human stomach	x (immune cells ✓)	Human colon carcinoma	x (immune cells ✓)	Human pancreatic carcinoma	x (immune cells ✓)
Human liver	x (immune cells ✓)	Human testis	x	Human endometrial carcinoma	x (immune cells ✓)	Human prostatic hyperplasia	x
Human lung	x (immune cells ✓)	Human thyroid	x	Human gastric adenocarcinoma	x (immune cells ✓)	Human thyroid carcinoma	x (immune cells ✓)
Human mammary gland	x (immune cells ✓)	Human tonsil	✓				
Human pancreas	x						

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD11b antibody [EPR1344] (ab133357)

Tissue Microarrays stained for "Anti-CD11b antibody [EPR1344]" using "ab133357" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with ab133357 for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Anti-CD11b antibody [EPR1344] (ab133357)

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