abcam

Product datasheet

# Anti-CD44 antibody [EPR18668] - BSA and Azide free ab232556

KO 評価済 リコンビナント RabMAb

画像数 15

## 製品の概要

| | |
|---|---|
| **製品名** | Anti-CD44 antibody [EPR18668] - BSA and Azide free |
| **製品の詳細** | Rabbit monoclonal [EPR18668] to CD44 - BSA and Azide free |
| **由来種** | Rabbit |
| **アプリケーション** | **適用あり:** WB, IHC-P, IP<br>**適用なし:** Flow Cyt or ICC/IF |
| **種交差性** | **交差種:** Mouse, Rat, Human |
| **免疫原** | Recombinant fragment. This information is proprietary to Abcam and/or its suppliers. |
| **ポジティブ・コントロール** | WB: Human fetal brain, fetal heart, fetal kidney and fetal spleen lysates; Human thymus and skin lysates; HAP1, HeLa, A549, U-87 MG, C6, RAW 264.7, PC-12 and NIH/3T3 whole cell lysates; Mouse brain and spleen lysates; Rat brain, heart, kidney and spleen lysates; IHC-P: Human breast, endometrial cancer, kidney, tonsil and breast cancer tissues; Mouse colon, stomach and spleen tissues; Rat stomach and spleen tissues; IP: A549 whole cell lysate. |
| **特記事項** | ab232556 is the carrier-free version of **ab189524**.<br><br>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.<br><br>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.<br><br>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.<br><br>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.<br><br>This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>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**.

## 製品の特性

| | |
|---|---|
| **製品の状態** | Liquid |
| **保存方法** | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| **バッファー** | pH: 7.2<br>Constituent: PBS |
| **キャリア・フリー** | はい |
| **精製度** | Protein A purified |
| **ポリ/モノ** | モノクローナル |
| **クローン名** | EPR18668 |
| **アイソタイプ** | IgG |

## アプリケーション

**The Abpromise guarantee** **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab232556の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

| アプリケーション | Abreviews | 特記事項 |
|---|---|---|
| **WB** | | Use at an assay dependent concentration. Predicted molecular weight: 81 kDa. |
| **IHC-P** | | Use at an assay dependent concentration. |
| **IP** | | Use at an assay dependent concentration. |

**追加情報** Is unsuitable for Flow Cyt or ICC/IF.

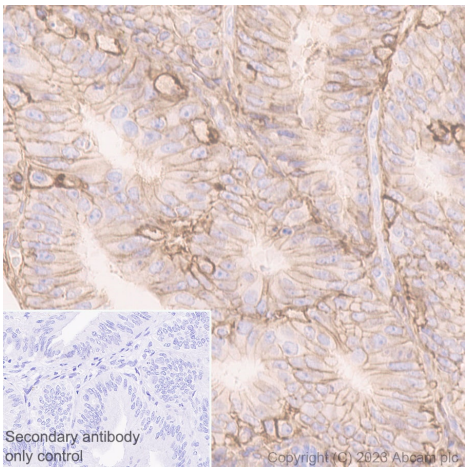
## ターゲット情報

| | |
|---|---|
| **機能** | Receptor for hyaluronic acid (HA). Mediates cell-cell and cell-matrix interactions through its affinity for HA, and possibly also through its affinity for other ligands such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Adhesion with HA plays an important role in cell migration, tumor growth and progression. Also involved in lymphocyte activation, recirculation and homing, and in hematopoiesis. Altered expression or dysfunction causes numerous pathogenic phenotypes. Great protein heterogeneity due to numerous alternative splicing and post-translational modification events. |
| **組織特異性** | Isoform 10 (epithelial isoform) is expressed by cells of epithelium and highly expressed by carcinomas. Expression is repressed in neuroblastoma cells. |
| **配列類似性** | Contains 1 Link domain. |
| **ドメイン** | The lectin-like LINK domain is responsible for hyaluronan binding. |
| **翻訳後修飾** | Proteolytically cleaved in the extracellular matrix by specific proteinases (possibly MMPs) in |

several cell lines and tumors.
N-glycosylated.
O-glycosylated; contains more-or-less-sulfated chondroitin sulfate glycans, whose number may affect the accessibility of specific proteinases to their cleavage site(s).
Phosphorylated; activation of PKC results in the dephosphorylation of Ser-706 (constitutive phosphorylation site), and the phosphorylation of Ser-672.

**細胞内局在** Membrane.

## 画像



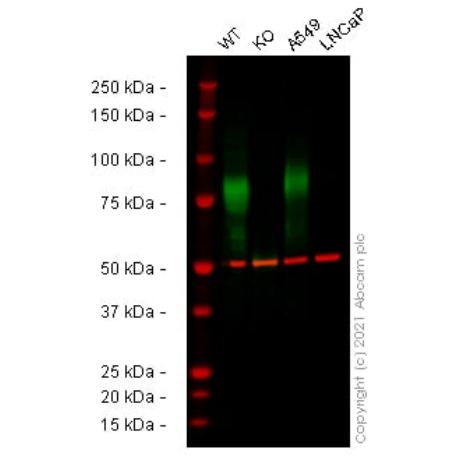

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded human endometrial carcinoma tissue labeling CD44 with **ab189524** at 1/8000 dilution (0.099 µg/ml), followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on human endometrial carcinoma. The section was incubated with **ab189524** at 4°C overnight.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 (**ab93684**) pH 9.0 before commencing with IHC staining protocol.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab189524**)




Western blot - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

**All lanes :** Anti-CD44 antibody [EPR18668] (**ab189524**) at 1/1000 dilution

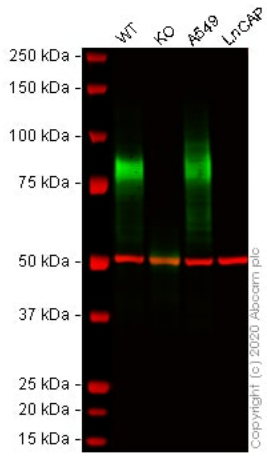
**Lane 1 :** Wild-type HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
**Lane 2 :** CD44 knockout HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
**Lane 3 :** A549 (Human lung carcinoma cell line) whole cell lysate
**Lane 4 :** LNCaP (Human prostate cancer cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 81 kDa
**Observed band size:** 70-85 kDa

False colour image of Western blot: Anti-CD44 antibody [EPR18668] 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, **ab189524** was shown to bind specifically to CD44. A band was observed at 70-85 kDa in wild-type HeLa cell lysates with no signal observed at this size in CD44 knockout cell line **ab262515** (knockout cell lysate **ab263938**). To generate this image, wild-type and CD44 knockout HeLa 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 Â°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 (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.




Western blot - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

**All lanes :** Anti-CD44 antibody [EPR18668] (**ab189524**) at 1/1000 dilution

**Lane 1 :** Wild-type HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
**Lane 2 :** CD44 knockout HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
**Lane 3 :** A549 (Human lung carcinoma cell line) whole cell lysate
**Lane 4 :** LNCaP (Human prostate cancer cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

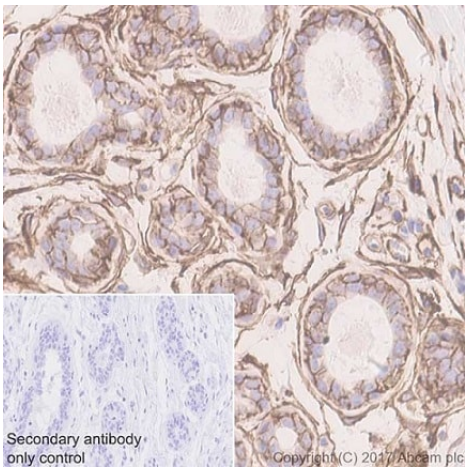
Performed under reducing conditions.

**Predicted band size:** 81 kDa
**Observed band size:** 80 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab189524**).

**Lanes 1 - 4:** Merged signal (red and green). Green - **ab189524** observed at 80 kDa. Red - loading control, **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) observed at 55kDa.

**ab189524** was shown to react with CD44 in wild-type HeLa cells in western blot. Loss of signal was observed when CD44 knockout sample was used. Wild-type HeLa and CD44 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween®) before incubation with **ab189524** and **ab7291** (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

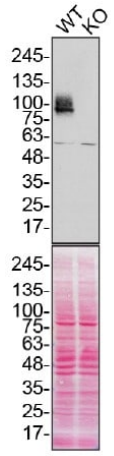



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded human breast tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on human breast [PMID: 20103682]. 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 (**ab189524**).




Western blot - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

**All lanes :** Anti-CD44 antibody [EPR18668] (**ab189524**) at 1/1000 dilution

**Lane 1 :** Wild-type HAP1 cell lysate
**Lane 2 :** CD44 knockout HAP1 cell lysate

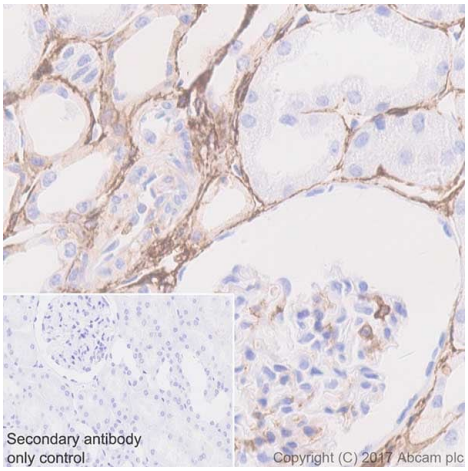
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 81 kDa

This data was developed using the same antibody in a different buffer formulation (**ab189524**).

**ab189524** was shown to react with CD44 in wild-type HAP1 cells in Western blot with loss of signal observed in a CD44 knockout cell line. Wild-type HAP1 and CD44 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with **ab189524** overnight at 4 °C at a 1/1000 dilution. Blots were incubated with goat anti-rabbit HRP secondary antibodies at 0.2ug/mL before imaging. These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.



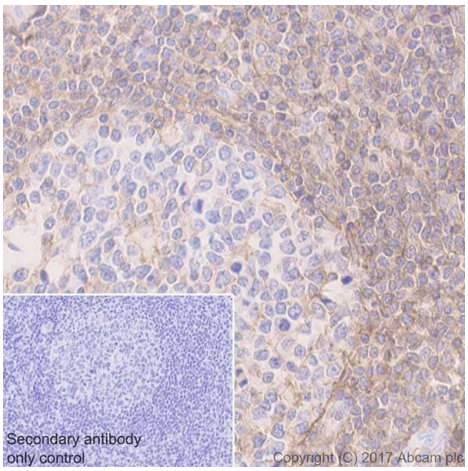

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on human kidney.

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 (**ab189524**).



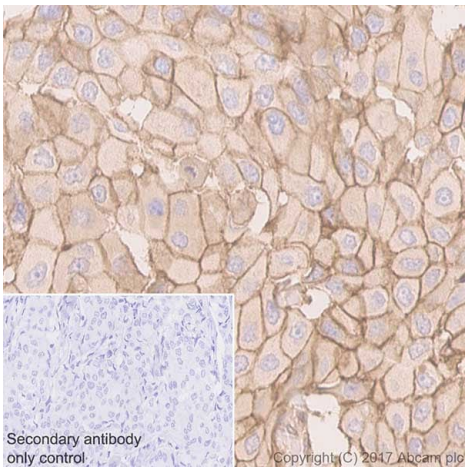

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on human tonsil.

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 (**ab189524**).



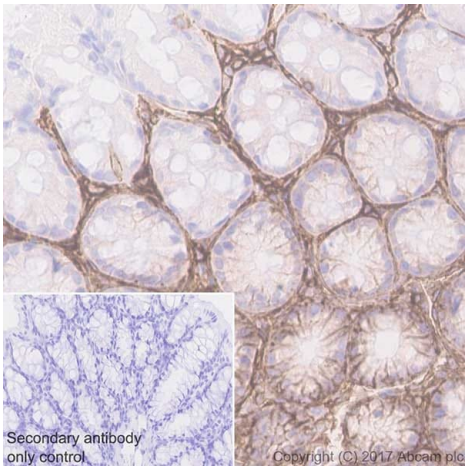

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded human breast cancer tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on human breast cancer [PMID: 15867228].

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 (**ab189524**).



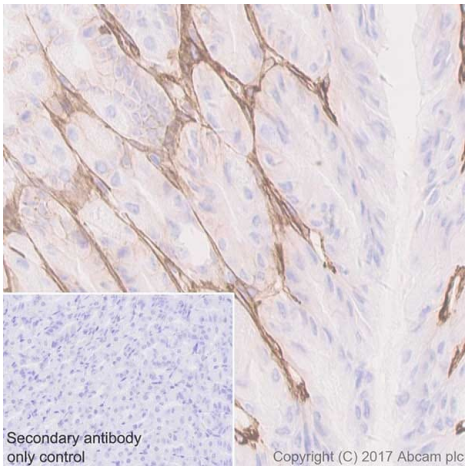

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on mouse colon.

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 (**ab189524**).



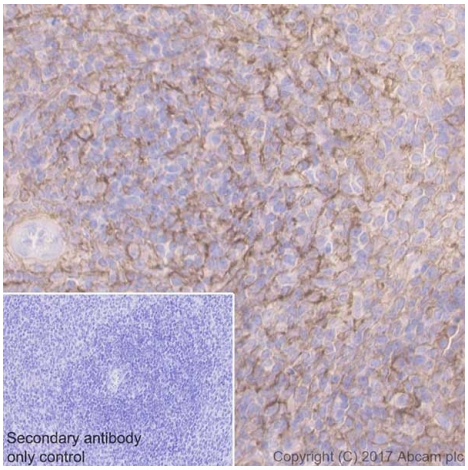

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded mouse stomach tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on mouse stomach.

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 (**ab189524**).



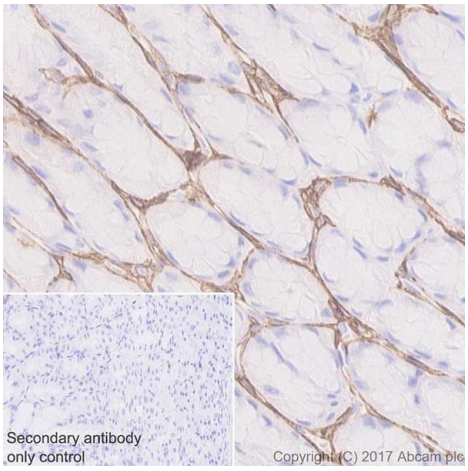

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on mouse spleen.

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 (**ab189524**).



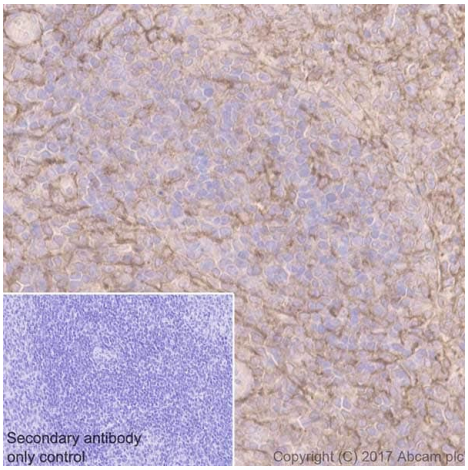

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded rat stomach tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous staining on rat stomach.

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 (**ab189524**).



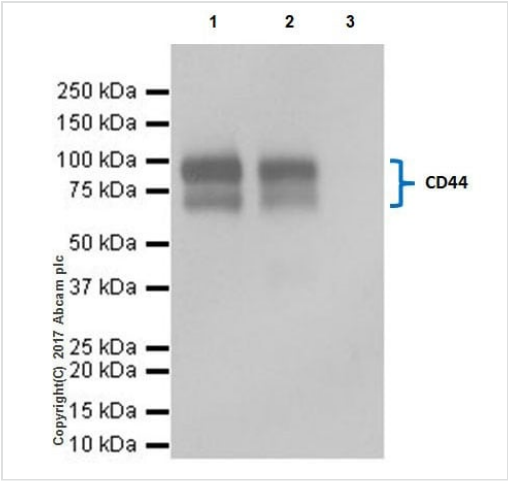

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling CD44 with **ab189524** at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Membranous and weak cytoplasmic staining on rat spleen.

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 (**ab189524**).




Immunoprecipitation - Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)

CD44v6 was immunoprecipitated from 1 mg of A549 (Human lung carcinoma cell line) whole cell lysate with **ab189524** at 1/25 dilution. Western blot was performed from the immunoprecipitate using **ab189524** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: A549 whole cell lysate 10 µg (Input).

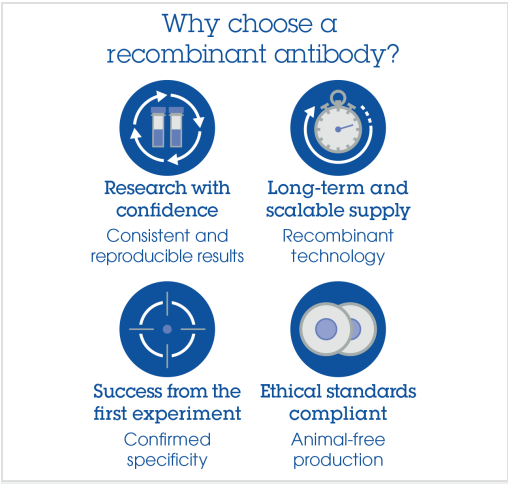
Lane 2: **ab189524** IP in A549 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab189524** in A549 whole cell lysate.

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

Exposure time: 1 second.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab189524**).




Anti-CD44 antibody [EPR18668] - BSA and Azide free (ab232556)



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