abcam

ab243894

# Anti-CD44 antibody [BLR038F]

Anti-CD44 antibody [BLR038F] (ab243894) is a rabbit monoclonal antibody detecting CD44 in **Western Blot, Flow Cytometry, IP, IHC-P**. Suitable for **Human, Mouse**.

- KO validated for confirmed specificity
- Recombinant format for unrivalled batch-batch consistency
- Over 10 publications

Lab Essentials | Recombinant | KO Validated

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline, 0.1% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Synthetic Peptide within Human CD44 aa 700 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P16070 |
| **Clone number** | BLR038F |
| **Concentration** | 0.05 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |
| **Purification notes** | Recombinant antibody was purified from cell culture supernatant. |

## Reactivity data

### IHC-P

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 - 1/500 |
| **Notes** | Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## ICC

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/100 - 1/500 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IP

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | Use 20µl/mg lysate. |

### Expected

| | |
|---|---|
| **Species** | Mouse |

| | |
|---|---|
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1 µL for $10^6$ Cells |
| **Notes** | - |

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1 µL for $10^6$ Cells |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | 1/1000 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/1000 |
| **Notes** | - |

## Target data

See full target information CD44

| | |
|---|---|
| **Function** | Cell-surface receptor that plays a role in cell-cell interactions, cell adhesion and migration, helping them to sense and respond to changes in the tissue microenvironment (PubMed:16541107, PubMed:19703720, PubMed:22726066). Participates thereby in a wide variety of cellular functions including the activation, recirculation and homing of T-lymphocytes, hematopoiesis, inflammation and response to bacterial infection (PubMed:7528188). Engages, through its ectodomain, extracellular matrix components such as hyaluronan/HA, collagen, growth factors, cytokines or proteases and serves as a platform for signal transduction by assembling, via its cytoplasmic domain, protein complexes |

containing receptor kinases and membrane proteases (PubMed:18757307, PubMed:23589287). Such effectors include PKN2, the RhoGTPases RAC1 and RHOA, Rho-kinases and phospholipase C that coordinate signaling pathways promoting calcium mobilization and actin-mediated cytoskeleton reorganization essential for cell migration and adhesion (PubMed:15123640). Upon interaction with LGALS9 ligand, activates downstream signaling components including LCK, ERK and MAPK to promotes NK cell activation (PubMed:37006235). (Microbial infection) Promotes foot-and-mouth disease virus internalization via macropinocytosis.

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## Notes

**What is this antibody validated in?**
Anti-CD44 antibody [BLR038F] (ab243894) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P) in Human, Mouse samples.

**Trusted by the scientific community**
Anti-CD44 [BLR038F] (ab243894) was first used in a scientific publication in 2018 and has been cited over 10 times in peer-reviewed journals.

**Specificity confirmed**
The specificity of Anti-CD44 antibody [BLR038F] (ab243894) has been confirmed by Western blot testing in CD44 Knockout HeLa cells.

**REACH authorisation**
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

This product is sold under License from Bethyl Laboratories, Inc.

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

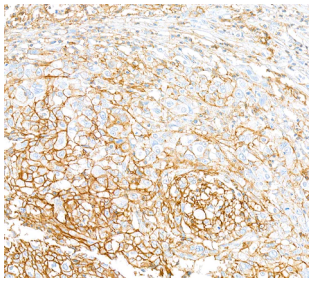
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

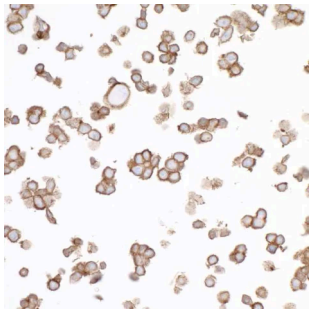
Full details and terms and conditions can be found here:
Terms & Conditions.

## 16 product images



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [BLR038F] (ab243894)

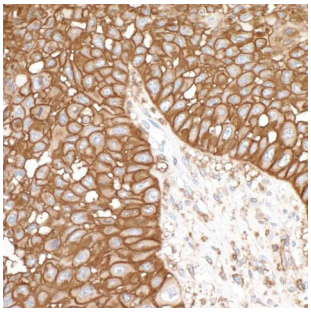
Immunohistochemical analysis of Formalin-Fixed Paraffin-Embedded breast carcinoma labeling human CD44 with ab243894, followed by a HRP-conjugated goat anti-rabbit IgG as secondary. Substrate: DAB. Membrane staining on breast carcinoma is observed. Counter stained with hematoxylin. Epitope retrieval with citrate buffer pH 6.0 for 20 minutes is recommended.



### Immunocytochemistry - Anti-CD44 antibody [BLR038F] (ab243894)

CD44 Immunocytochemistry staining using rabbit Anti-CD44 antibody

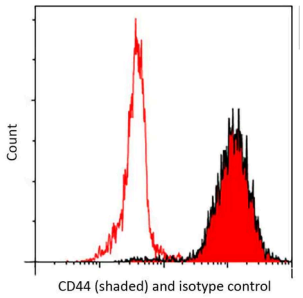
Formalin-fixed, paraffin-embedded HCT 116 (human colorectal carcinoma cell line) cells labeling CD44 using ab243894 at 1/500 dilution in ICC analysis. A HRP-conjugated goat-anti rabbit IgG was used as the secondary. DAB staining.



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [BLR038F] (ab243894)

CD44 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CD44 antibody

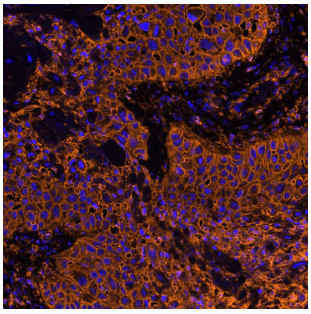
Formalin-fixed, paraffin-embedded human head and neck squamous cell carcinoma tissue stained for CD44 using ab243894 at 1/500 dilution in immunohistochemical analysis. A HRP-conjugated goat anti-rabbit antibody was used as the secondary. DAB staining.




## Flow Cytometry - Anti-CD44 antibody [BLR038F] (ab243894)

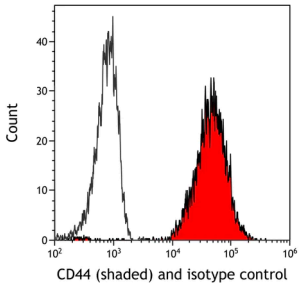
CD44 Flow Cytometry staining using rabbit Anti-CD44 antibody

Flow Cytometry analysis of HeLa cells labeling CD44 with ab243894 (red). Cells were fixed in 4% formaldehyde and permeabilized with 90% methanol. Isotype control (unshaded). *Secondary:* DyLight® 650-conjugated goat anti-rabbit IgG.



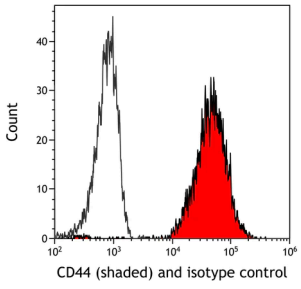
## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [BLR038F] (ab243894)

Immunohistochemical (IHC-IF) analysis of Formalin-Fixed Paraffin-Embedded head and neck squamous cell carcinoma tissue labeling human CD44 (Orange) with ab243894 followed by a HRP-conjugated goat anti-rabbit IgG as secondary. Substrate: Opal™. Membrane staining on head and neck squamous cell carcinoma tissue is observed. Counter stained with DAPI (Blue). Epitope retrieval with citrate buffer pH 6.0 for 20 minutes is recommended.



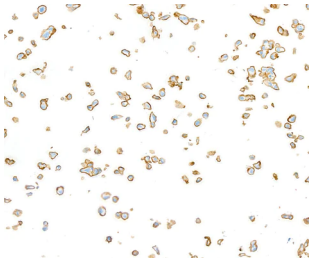

## Flow Cytometry - Anti-CD44 antibody [BLR038F] (ab243894)

Flow cytometry overlay histogram of 4% formaldehyde fixed HeLa cells permeabilized with 90% methanol labeling human CD44 with ab243894 at 1 µl per 1 x 10^6 cells (shaded) compared with a Isotype control (unshaded). Secondary antibody details: Goat Anti-Rabbit IgG H&L (DyLight® 650) (ab96886).



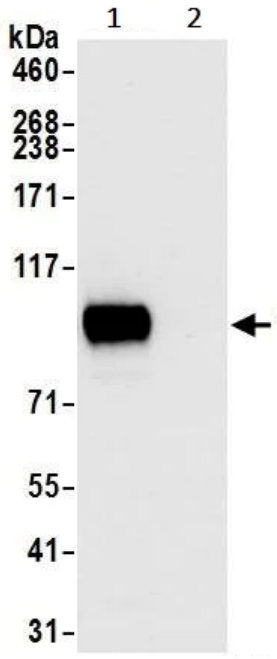

## Flow Cytometry - Anti-CD44 antibody [BLR038F] (ab243894)

Flow cytometry overlay histogram of 4% formaldehyde fixed HeLa cells permeabilized with 90% methanol labeling human CD44 with ab243894 at 1 µl per 1 x 10^6 cells. (shaded) compared with a Isotype control (unshaded). Secondary antibody details: Goat Anti-Rabbit IgG H&L (DyLight® 650) (ab96886).



## Immunocytochemistry - Anti-CD44 antibody [BLR038F] (ab243894)

Immunocytochemical analysis of Formalin-Fixed Paraffin-Embedded 786-O cells labeling human CD44 with ab243894 followed by a HRP-conjugated goat anti-rabbit IgG as secondary. Substrate: DAB. Membrane staining on786-O cells is observed. Counter stained with hematoxylin. Epitope retrieval with citrate buffer pH 6.0 for 20 minutes is recommended.



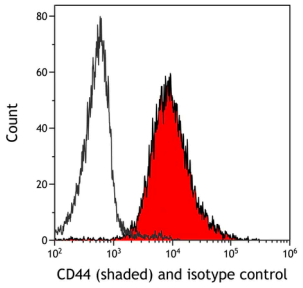

## Immunoprecipitation - Anti-CD44 antibody [BLR038F] (ab243894)

CD44 was immunoprecipitated from 1.0 mg HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab243894 at 20 µl per reaction. Western blot was performed on the immunoprecipitate using ab243894 at 1/1000 dilution. Lane 1: ab243894 IP in HeLa whole cell lysate.
Lane 2: Control IgG in HeLa whole cell lysate.

Detection: Chemiluminescence with an exposure time of 3 seconds.

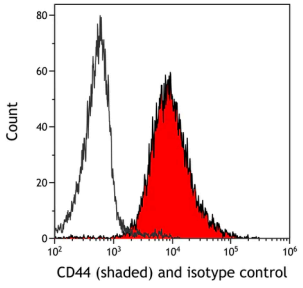
All lanes:
Immunoprecipitation - Anti-CD44 antibody [BLR038F] (ab243894)

Predicted band size: 81 kDa



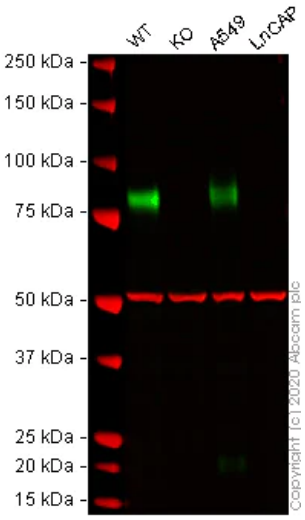

## Flow Cytometry - Anti-CD44 antibody [BLR038F] (ab243894)

Flow cytometry overlay histogram of 4% formaldehyde fixed EL4 cells permeabilized with 90% methanol labeling mouse CD44 with ab243894 at 1 µl per 1 x 10^6 cells (shaded) compared with a Isotype control (unshaded). Secondary antibody details: Goat Anti-Rabbit IgG H&L (DyLight® 650) (ab96886).




## Flow Cytometry - Anti-CD44 antibody [BLR038F] (ab243894)

Flow cytometry overlay histogram of 4% formaldehyde fixed EL4 cells permeabilized with 90% methanol labeling mouse CD44 with ab243894 at 1 µl per 1 x 10^6 cells. (shaded) compared with a Isotype control (unshaded). Secondary antibody details: Goat Anti-Rabbit IgG H&L (DyLight® 650) (ab96886).




## Western blot - Anti-CD44 antibody [BLR038F] (ab243894)

CD44 Western blot staining using rabbit Anti-CD44 antibody

**Lanes 1 - 4:** Merged signal (red and green). Green - ab243894 observed at 80 kDa. Red - loading control, ab7291 (Mouse anti-Alpha Tubulin [DM1A]) observed at 55kDa.
ab243894 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 ab243894 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.

All lanes:
Western blot - Anti-CD44 antibody [BLR038F] (ab243894) at 1/1000 dilution

Lane 1:
Wild-type HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 2:
Western blot - Human CD44 knockout HeLa cell lysate (ab263938) at 20 µg

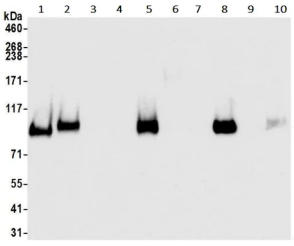
Lane 3:
A549 (Human lung carcinoma cell line) whole cell lysate at 20 µg

Lane 4:
LNCaP (Human prostate cancer cell line) whole cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 81 kDa

Observed band size: 80 kDa




## Western blot - Anti-CD44 antibody [BLR038F] (ab243894)

CD44 Western blot staining using rabbit Anti-CD44 antibody

Detection: chemiluminescence with an exposure time of 3 seconds.
All lanes:
Western blot - Anti-CD44 antibody [BLR038F] (ab243894) at 1/1000 dilution

Lane 1:
HeLa whole cell lysate at 50 µg

Lane 2:
786-O whole cell lysate at 50 µg

Lane 3:
HEK-293T whole cell lysate at 50 µg

Lane 4:
Jurkat-3 whole cell lysate at 50 µg

Lane 5:
A549 whole cell lysate at 50 µg

Lane 6:

MCF7 whole cell lysate at 50 µg

Lane 7:
HepG2 whole cell lysate at 50 µg

Lane 8:
KG-1 whole cell lysate at 50 µg

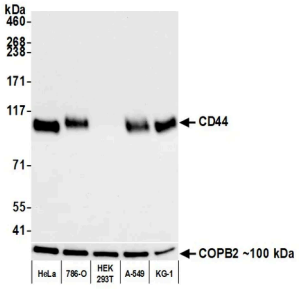
Lane 9:
RPMI 8226 whole cell lysate at 50 µg

Lane 10:
MOLT-4 whole cell lysate at 50 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG antibody

Predicted band size: 81 kDa




## Western blot - Anti-CD44 antibody [BLR038F] (ab243894)

All lanes:
Western blot - Anti-CD44 antibody [BLR038F] (ab243894) at 1/1000 dilution

Lane 1:
HeLa whole cell lysate at 10 µg

Lane 2:
786-O whole cell lysate at 10 µg

Lane 3:
HEK293T whole cell lysate at 10 µg

Lane 4:
A-549 whole cell lysate at 10 µg

Lane 5:
KG-1 cells whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051)

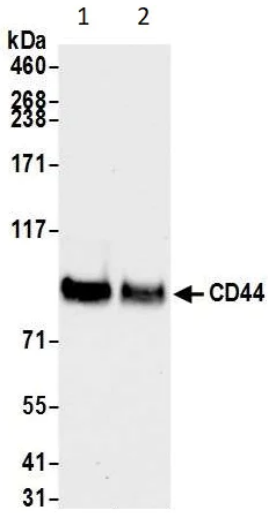
Developed using the ECL technique.

Predicted band size: 81 kDa

Observed band size: 90 kDa

Exposure time: 3s

## Western blot - Anti-CD44 antibody [BLR038F] (ab243894)




CD44 Western blot staining using rabbit Anti-CD44 antibody

Detection method: Chemiluminescence
All lanes:
Western blot - Anti-CD44 antibody [BLR038F] (ab243894) at 1/1000 dilution

Lane 1:
BW5147.3 cell lysate at 50 µg

Lane 2:
EL4 cell lysate at 50 µg

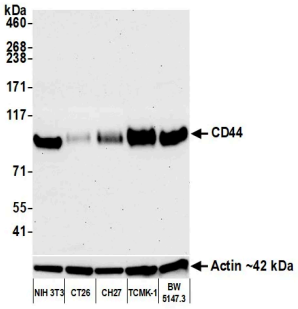
Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG

Predicted band size: 81 kDa

Exposure time: 10s

## Western blot - Anti-CD44 antibody [BLR038F] (ab243894)




CD44 Western blot staining using rabbit Anti-CD44 antibody

All lanes:
Western blot - Anti-CD44 antibody [BLR038F] (ab243894) at 1/1000 dilution

Lane 1:
NIH 3T3 whole cell lysate at 10 µg

Lane 2:
CT26 whole cell lysate at 10 µg

Lane 3:
CH27 whole cell lysate at 10 µg

Lane 4:
TCMK-1 whole cell lysate at 10 µg

Lane 5:
BW5147.3 whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051)

Developed using the ECL technique.

Predicted band size: 85 kDa

Observed band size: 90 kDa

Exposure time: 30s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.