# abcam

## Product datasheet

# Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free ab251504





RabMAb

# 13 Images

#### Overview

**Product name** Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free

**Description** Rabbit monoclonal [EPR19244] to Galectin 3 - BSA and Azide free

**Host species** Rabbit

**Tested applications** Suitable for: Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF

**Species reactivity** Reacts with: Human

**Immunogen** Recombinant full length protein. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: HeLa, SW480, MCF7, A431 and Wild-type A549 whole cell lysates; human heart, kidney and

> stomach lysates. IHC-P: Human liver, stomach, diffuse large B cell lymphoma and colon cancer tissues. ICC/IF: HeLa and A431 cells. Flow Cyt (intra): HeLa cells. IP: HeLa whole cell lysate.

General notes ab251504 is the carrier-free version of ab209344.

> 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 cellbased 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<sup>®</sup> 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

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#### **Properties**

Form Liquid

**Storage instructions** Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.2

Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal
Clone number EPR19244

**Isotype** IgG

#### **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab251504 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
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 26 kDa (predicted molecular weight: 26 kDa).
IP		Use at an assay dependent concentration.
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.
ICC/IF		Use at an assay dependent concentration.

# Target

**Function** Galactose-specific lectin which binds IgE. May mediate with the alpha-3, beta-1 integrin the

stimulation by CSPG4 of endothelial cells migration. Together with DMBT1, required for terminal

differentiation of columnar epithelial cells during early embryogenesis.

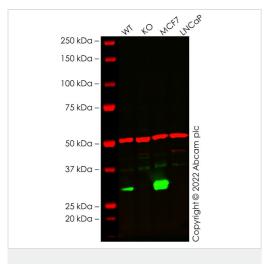
Tissue specificity A major expression is found in the colonic epithelium. It is also abundant in the activated

macrophages.

Sequence similarities Contains 1 galectin domain.

Cellular localization Nucleus. Cytoplasmic in adenomas and carcinomas. May be secreted by a non-classical

secretory pathway and associate with the cell surface.



Western blot - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)

**All lanes :** Anti-Galectin 3 antibody [EPR19244] (**ab209344**) at 1/1000 dilution

Lane 1: Wild-type A549 cell lysate

Lane 2: LGALS3 knockout A549 cell lysate

Lane 3 : MCF7 cell lysate

Lane 4 : LNCaP cell lysate

Lysates/proteins at 20 µg per lane.

#### **Secondary**

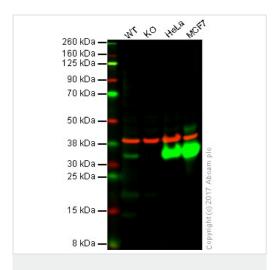
**All lanes :** Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

**Predicted band size:** 26 kDa **Observed band size:** 30 kDa

False colour image of Western blot: Anti-Galectin 3 antibody [EPR19244] 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, ab209344 was shown to bind specifically to Galectin 3. A band was observed at 30 kDa in wild-type A549 cell lysates with no signal observed at this size in LGALS3 knockout cell line. To generate this image, wildtype and LGALS3 knockout A549 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<sup>®</sup> 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.

This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.



Western blot - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)

1 2 3 4

250 kDa —
150 kDa —
100 kDa —
75 kDa —
37 kDa —
25 kDa —
20 kDa —
15 kDa —
15 kDa —
10 kDa —

Western blot - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)

This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.

Lane 1: Wild-type HAP1 whole cell lysate (20  $\mu$ g)

Lane 2: alectin 3 (KO) knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: MCF7 whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - <u>ab209344</u> observed at 35 kDa. Red - loading control, <u>ab8245</u>, observed at 37 kDa.

ab209344 was shown to specifically react with Galectin 3 (KO) in wild-type HAP1 cells. No band was observed when LGALS3 (KO) knockout samples were examined. Wild-type and Galectin 3 (KO) knockout samples were subjected to SDS-PAGE. ab209344 and ab8245 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10,000 dilution respectively. Blots were developed 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 1/20,000 dilution for 1 hour at room temperature before imaging.

**Lanes 1-2:** Anti-Galectin 3 antibody [EPR19244] (**ab209344**) at 1/10000 dilution

Lanes 3-4: Anti-Galectin 3 antibody [EPR19244] (ab209344) at 1/1000 dilution

**Lane 1 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2 :** SW480 (Human colorectal adenocarcinoma cell line) whole cell lysate

Lane 3: MCF7 (Human breast adenocarcinoma cell line) whole cell lysate

Lane 4: A431 (Human epidermoid carcinoma cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit lgG H&L (HRP) (ab97051) at 1/100000 dilution

**Predicted band size:** 26 kDa **Observed band size:** 26 kDa

This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

Exposure times: Lanes 1-2: 30 seconds; Lanes 3-4: 8 seconds.

**All lanes :** Anti-Galectin 3 antibody [EPR19244] ( $\underline{ab209344}$ ) at 1/1000 dilution

Lane 1 : Human heart tissue
Lane 2 : Human kidney tissue

Lane 3: Human stomach tissue

Lysates/proteins at 10 µg per lane.

**Secondary** 

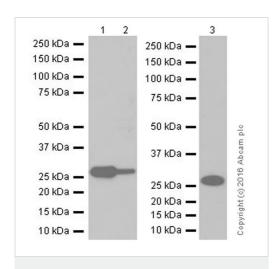
**All lanes :** Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

**Predicted band size:** 26 kDa **Observed band size:** 26 kDa

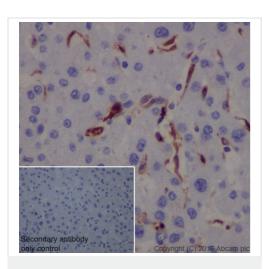
This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFDM/TBST.

**Exposure times:** Lanes 1-2: 15 seconds; Lane 3: 30 seconds.



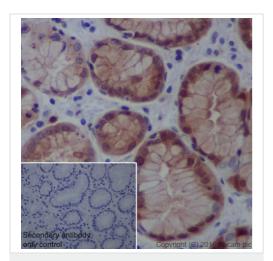
Western blot - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Galectin 3 antibody
[EPR19244] - BSA and Azide free (ab251504)

This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.

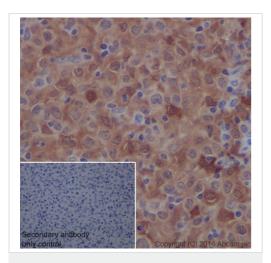
Immunohistochemical analysis of paraffin-embedded human liver tissue labeling Galectin 3 with <a href="mailto:ab209344">ab209344</a> at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Positive staining on Kupffer cells in the liver 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) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Galectin 3 antibody
[EPR19244] - BSA and Azide free (ab251504)

This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.

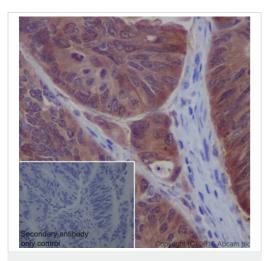
Immunohistochemical analysis of paraffin-embedded human stomach tissue labeling Galectin 3 with <a href="mailto:ab209344">ab209344</a> at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Cytoplasmic and nuclear staining on human stomach 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) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Galectin 3 antibody
[EPR19244] - BSA and Azide free (ab251504)

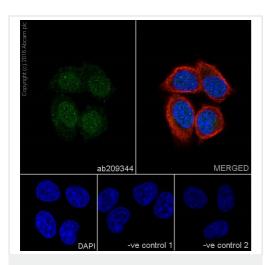
This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded human diffuse large B cell lymphoma tissue labeling Galectin 3 with <a href="mailto:ab209344">ab209344</a> at 1/2000 dilution, followed by Goat Anti-Rabbit lgG H&L (HRP) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Cytoplasmic and weak nuclear staining on human diffuse large B cell lymphoma is observed. Counter stained with Hematoxylin. Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit lgG H&L (HRP) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Galectin 3 antibody
[EPR19244] - BSA and Azide free (ab251504)

This data was developed using <a href="mailto:ab209344">ab209344</a>, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded human colon cancer tissue labeling Galectin 3 with <a href="mailto:ab209344">ab209344</a> at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Cytoplasmic and weak nuclear staining on human colon cancer 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) (<a href="mailto:ab97051">ab97051</a>) at 1/500 dilution. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)

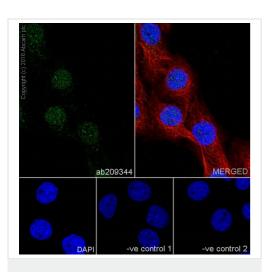
This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling Galectin 3 with <u>ab209344</u> at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L(Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and weak cytoplasmic staining on HeLa cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin mouse MAb (<u>ab7291</u>) at 1/1000 dilution and Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 594) (<u>ab150120</u>) secondary antibody at 1/1000 dilution (red). The negative controls are as follows:

-ve control 1: <u>ab209344</u> at 1/500 dilution followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (<u>ab150120</u>) secondary antibody at 1/1000 dilution.

-ve control 2: Anti-alpha Tubulin mouse MAb (<u>ab7291</u>) at 1/1000 dilution followed by Goat Anti-Rabbit IgG H&L(Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) secondary antibody at 1/1000 dilution.

This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.lmmunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized A431 (Human epidermoid carcinoma cell line) cells labeling Galectin 3 with <u>ab209344</u> at 1/500 dilution, followed by Goat Anti-Rabbit lgG H&L (Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) secondary antibody at 1/1000 dilution (green). Confocal image showing nuclear and weakly cytoplasmic staining on A431 cell line. The nuclear counter stain is DAPI (blue). Tubulin is detected with Antialpha Tubulin mouse MAb (<u>ab7291</u>) at 1/1000 dilution and Goat Anti-Mouse lgG H&L (Alexa Fluor<sup>®</sup> 594) (<u>ab150120</u>) secondary antibody at 1/1000 dilution (red). The negative controls are as follows:

-ve control 1: <u>ab209344</u> at 1/500 dilution followed by <u>ab150120</u> Goat Anti-Mouse IgG H&L (Alexa Fluor<sup>®</sup> 594) (<u>ab150120</u>)



Immunocytochemistry/ Immunofluorescence - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)

secondary antibody at 1/1000 dilution.

-ve control 2: Anti-alpha Tubulin mouse MAb (<u>ab7291</u>) at 1/1000 dilution followed by Goat Anti-Rabbit lgG H&L (Alexa Fluor<sup>®</sup> 488) (<u>ab150077</u>) secondary antibody at 1/1000 dilution.

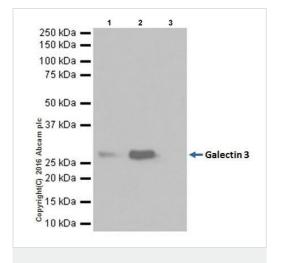
Count Convigit (c) 2016 Aboam Plo

Galectin 3 - Alexa Fluor® 488 (525/30 BP)

Flow Cytometry (Intracellular) - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)

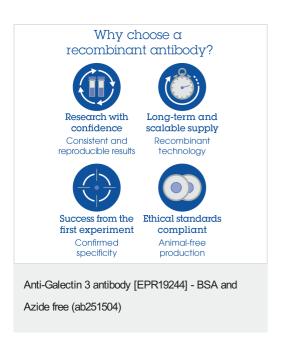
This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling Galectin 3 with <a href="mailto:ab209344">ab209344</a> at 1/50 dilution (red) compared with a rabbit monoclonal IgG isotype control (<a href="mailto:ab172730">ab172730</a>; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat Anti-Rabbit IgG (Alexa Fluor 488) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-Galectin 3 antibody [EPR19244] - BSA and Azide free (ab251504)

This data was developed using <u>ab209344</u>, the same antibody clone in a different buffer formulation. Galectin 3 was immunoprecipitated from 0.35 mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with <u>ab209344</u> at 1/30 dilution. Western blot was performed from the immunoprecipitate using <u>ab209344</u> at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (<u>ab131366</u>), was used for detection at 1/10000 dilution. Lane 1: HeLa whole cell lysate 10µg (Input). Lane 2: <u>ab209344</u> IP in HeLa whole cell lysate. Lane 3: Rabbit monoclonal IgG (<u>ab172730</u>) instead of <u>ab209344</u> in HeLa whole cell lysate. Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 8 seconds.



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