

## Product datasheet

# Anti-Zyxin antibody [EPR4302] ab109316

Recombinant RabMAb

[8 References](#) [11 Images](#)

### Overview

<b>Product name</b>	Anti-Zyxin antibody [EPR4302]
<b>Description</b>	Rabbit monoclonal [EPR4302] to Zyxin
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: HeLa, MCF7, Daudi and C2C12 cell lysates; mouse lung and testis, rat lung and testis tissue lysates. IHC-P: Human gastric carcinoma, mouse and rat kidney tissue IP: Mouse testis tissue lysate. Flow Cyt (intra): HeLa cells. ICC/IF: HeLa cells
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS</p>
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR4302

Isotype

IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab109316 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)		1/100. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/20000. Detects a band of approximately 82 kDa (predicted molecular weight: 61 kDa).
IP		1/50.
IHC-P		1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See <b>IHC antigen retrieval protocols</b> . The immunostaining was performed on a Leica Biosystems BOND <sup>®</sup> RX instrument.
ICC/IF		1/500.

## Target

### Function

Adhesion plaque protein. Binds alpha-actinin and the CRP protein. Important for targeting TES and ENA/VASP family members to focal adhesions and for the formation of actin-rich structures. May be a component of a signal transduction pathway that mediates adhesion-stimulated changes in gene expression.

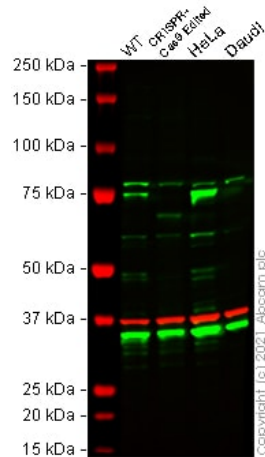
### Sequence similarities

Belongs to the zyxin/ajuba family.  
Contains 3 LIM zinc-binding domains.

### Cellular localization

Cytoplasm. Cytoplasm, cytoskeleton. Nucleus. Cell junction, focal adhesion. Associates with the actin cytoskeleton near the adhesion plaques. Enters the nucleus in the presence of HESX1.

## Images



Western blot - Anti-Zyxin antibody [EPR4302] (ab109316)

**All lanes** : Anti-Zyxin antibody [EPR4302] (ab109316) at 1/20000 dilution

**Lane 1** : Wild-type HEK-293T cell lysate

**Lane 2** : ZYX CRISPR-Cas9 edited HEK-293T cell lysate

**Lane 3** : HeLa cell lysate

**Lane 4** : Daudi cell lysate

Lysates/proteins at 20 µg per lane.

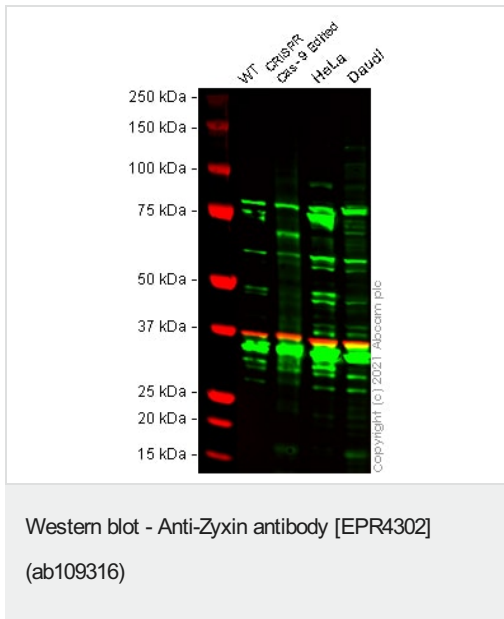
Performed under reducing conditions.

**Predicted band size:** 61 kDa

**Observed band size:** 75 kDa

False colour image of Western blot: Anti-Zyxin antibody [EPR4302] staining at 1/20000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab109316 was shown to bind specifically to Zyxin. A band was observed at 75 kDa in wild-type HEK-293T cell lysates with no signal observed at this size in ZYX CRISPR-Cas9 edited cell line [ab266503](#) (CRISPR-Cas9 edited cell lysate [ab257809](#)). The band observed in the CRISPR-Cas9 edited lysate lane below 75 kDa is likely to represent a truncated form of Zyxin. This has not been investigated further and the functional properties of the gene product have not been determined. To generate this image, wild-type and ZYX CRISPR-Cas9 edited HEK-293T cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution 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 (IRDye® 800CW)

preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



**All lanes** : Anti-Zyxin antibody [EPR4302] (ab109316) at 1/20000 dilution

**Lane 1** : Wild-type HEK-293T cell lysate

**Lane 2** : ZYX CRISPR-Cas9 edited HEK-293T cell lysate

**Lane 3** : HeLa cell lysate

**Lane 4** : Daudi cell lysate

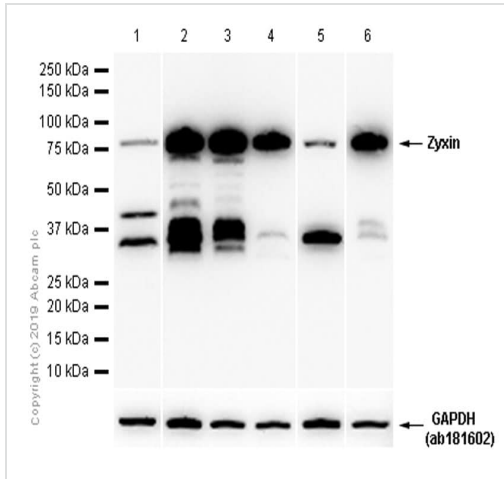
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 61 kDa

**Observed band size:** 75 kDa

False colour image of Western blot: Anti-Zyxin antibody [EPR4302] staining at 1/20000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab109316 was shown to bind specifically to Zyxin. A band was observed at 75 kDa in wild-type HEK-293T cell lysates with no signal observed at this size in ZYX CRISPR-Cas9 edited cell line [ab266504](#) (CRISPR-Cas9 edited cell lysate [ab257810](#)). The band observed in the CRISPR-Cas9 edited lysate lane below 75 kDa is likely to represent a truncated form of Zyxin. This has not been investigated further and the functional properties of the gene product have not been determined. To generate this image, wild-type and ZYX CRISPR-Cas9 edited HEK-293T cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution 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 (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



Western blot - Anti-Zyxin antibody [EPR4302] (ab109316)

**All lanes** : Anti-Zyxin antibody [EPR4302] (ab109316) at 1/20000 dilution (Purified)

**Lane 1** : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysates

**Lane 2** : C2C12 (Mouse myoblasts myoblast) whole cell lysates

**Lane 3** : Mouse lung lysates

**Lane 4** : Mouse testis lysates

**Lane 5** : Rat lung lysates

**Lane 6** : Rat testis lysates

Lysates/proteins at 20 µg per lane.

### Secondary

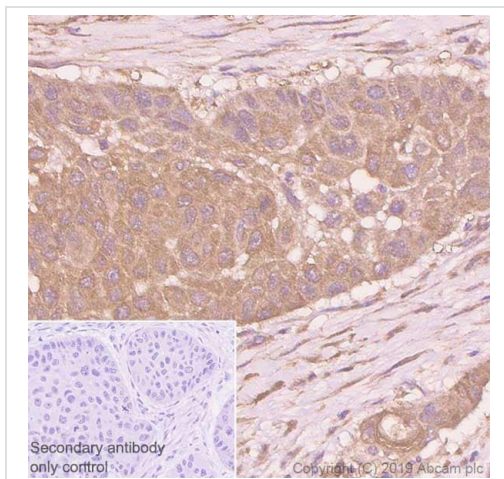
**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

**Predicted band size:** 61 kDa

**Observed band size:** 82 kDa

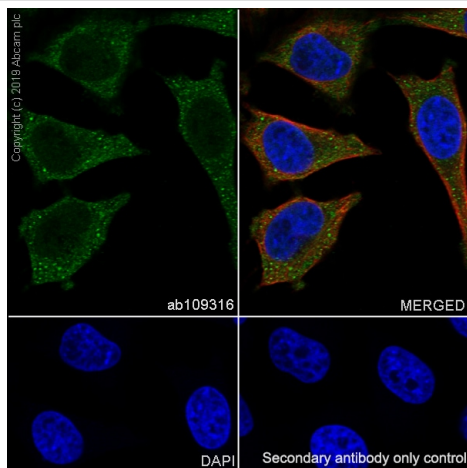
Blocking/Diluting buffer: 5% NFDM/TBST

We are unsure about the extra bands. They might be the cleavage fragments as what are described in PMID:17572661



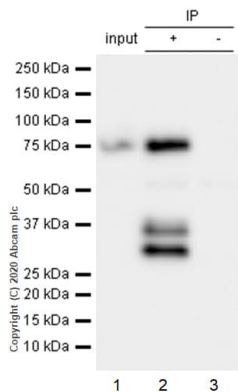
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Zyxin antibody [EPR4302] (ab109316)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human gastric carcinoma tissue sections labeling Zyxin with purified ab109316 at 1/1000 dilution (0.94 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunocytochemistry/ Immunofluorescence - Anti-Zyxin antibody [EPR4302] (ab109316)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Zyxin with Purified ab109316 at 1/500 dilution (1.87  $\mu\text{g}/\text{mL}$ ). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5  $\mu\text{g}/\text{mL}$ ). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2  $\mu\text{g}/\text{mL}$ ) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunoprecipitation - Anti-Zyxin antibody [EPR4302] (ab109316)

Purified ab109316 at 1/50 dilution (2 $\mu\text{g}$ ) immunoprecipitating Zyxin in Mouse testis lysate.

Lane 1 (input): Mouse testis lysate (10 $\mu\text{g}$ )

Lane 2 (+): ab109316 + Mouse testis lysate.

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab109316 in mouse testis lysate.

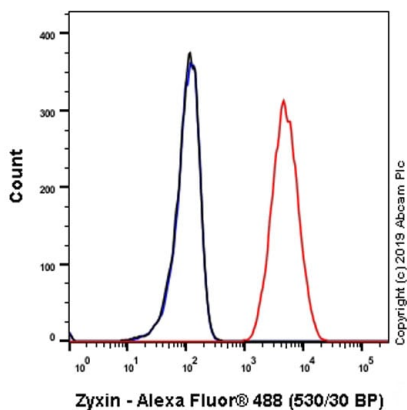
VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/5000) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm/TBST.

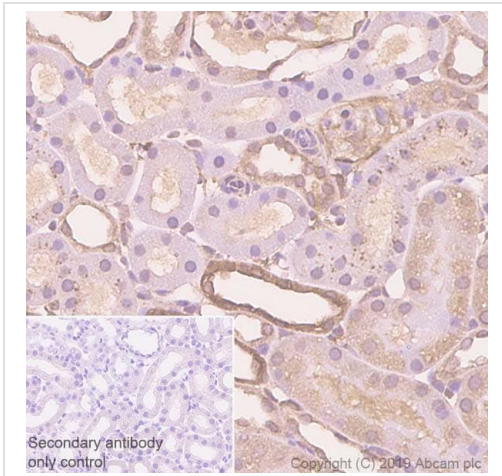
Observed band size: 82 kDa

We are unsure about the extra bands. They might be the cleavage fragments as what are described in PMID:17572661



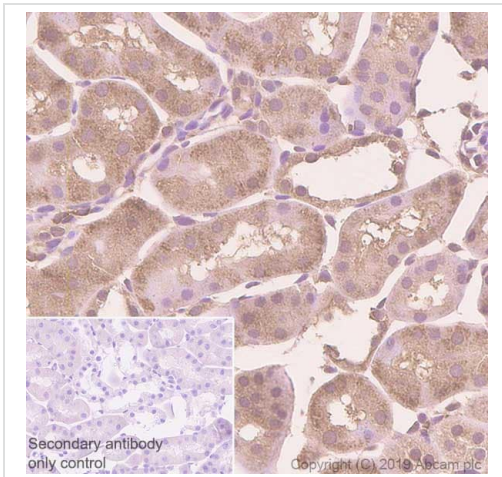
Flow Cytometry (Intracellular) - Anti-Zyxin antibody [EPR4302] (ab109316)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Zyxin with Purified ab109316 at 1/100 dilution (10  $\mu\text{g}/\text{mL}$ ) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



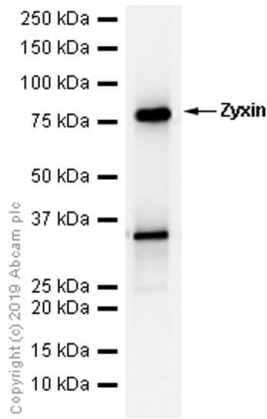
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Zyxin antibody [EPR4302] (ab109316)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat kidney tissue sections labeling Zyxin with purified ab109316 at 1/1000 dilution (0.94  $\mu\text{g/mL}$ ). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Zyxin antibody [EPR4302] (ab109316)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue sections labeling Zyxin with purified ab109316 at 1/1000 dilution (0.94  $\mu\text{g/mL}$ ). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Zyxin antibody [EPR4302]  
(ab109316)

Anti-Zyxin antibody [EPR4302] (ab109316) at 1/20000 dilution  
(Purified) + HeLa (Human cervix adenocarcinoma epithelial cell)  
whole cell lysates at 15 µg

#### Secondary

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

**Predicted band size:** 61 kDa

**Observed band size:** 82 kDa

Blocking/Diluting buffer: 5% NFD/MTBST

We are unsure about the extra bands. They might be the cleavage fragments as what are described in PMID:17572661

#### Why choose a recombinant antibody?



Anti-Zyxin antibody [EPR4302] (ab109316)

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

#### Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.



## Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors