abcam

Product datasheet

Anti-Axin 2 antibody [EPR2005(2)] ab109307

Recombinant RabMAb

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Overview

Product name	Anti-Axin 2 antibody [EPR2005(2)]
Description	Rabbit monoclonal [EPR2005(2)] to Axin 2
Host species	Rabbit
Tested applications	**Suitable for:** ICC/IF, IHC-P, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human, Pig
Immunogen	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) corresponding to Human Axin 2 aa 50-150.
Positive control	WB: C6, PC-12, NIH/3T3, MCF7, SW480, and PC3 cell lysates. IHC-P: Human lung carcinoma tissue. ICC/IF: LnCap cells.
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents **We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.** This product is a recombinant rabbit monoclonal antibody.

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. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 59% PBS, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR2005(2)

Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab109307** in the following tested applications.

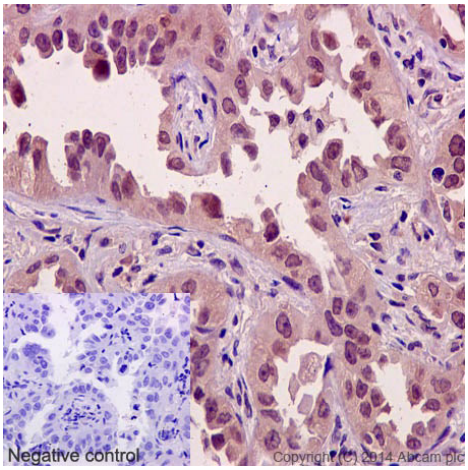
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★	1/150.
IHC-P	★★★★☆	1/150.
WB	★★★★★	1/1000 - 1/2000. Detects a band of approximately 95 kDa (predicted molecular weight: 94 kDa).

Target

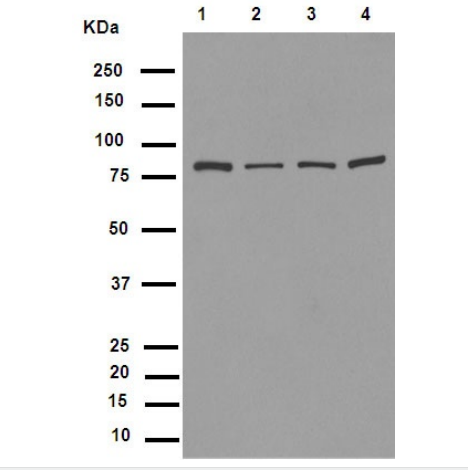
Function	Inhibitor of the Wnt signaling pathway. Down-regulates beta-catenin. Probably facilitate the phosphorylation of beta-catenin and APC by GSK3B.
Tissue specificity	Expressed in brain and lymphoblast.
Involvement in disease	Defects in AXIN2 are involved in colorectal cancer (CRC) [MIM:114500]. They appear to be specifically associated with defective mismatch repair. Defects in AXIN2 are the cause of oligodontia-colorectal cancer syndrome (ODCRCS) [MIM:608615]. Affected individuals manifest severe tooth agenesis and colorectal cancer or precancerous lesions of variable types.
Sequence similarities	Contains 1 DIX domain. Contains 1 RGS domain.
Domain	The tankyrase-binding motif (also named TBD) is required for interaction with tankyrase TNKS and TNKS2.
Post-translational modifications	Probably phosphorylated by GSK3B and dephosphorylated by PP2A. ADP-ribosylated by tankyrase TNKS and TNKS2. Poly-ADP-ribosylated protein is recognized by RNF146, followed by ubiquitination and subsequent activation of the Wnt signaling pathway. Ubiquitinated by RNF146 when poly-ADP-ribosylated, leading to its degradation and subsequent activation of the Wnt signaling pathway. Deubiquitinated by USP34, deubiquitinated downstream of beta-catenin stabilization step: deubiquitination is important Wnt signaling to positively regulate beta-catenin (CTNBB1)-mediated transcription.
Cellular localization	Cytoplasm.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue labelling Axin 2 with unpurified ab109307 at 1/150. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

All lanes : Anti-Axin 2 antibody [EPR2005(2)] (ab109307) at 1/1000 dilution (unpurified)

Lane 1 : SW480 cell lysate
Lane 2 : C6 cell lysate
Lane 3 : PC-12 cell lysate
Lane 4 : NIH/3T3 cell lysate

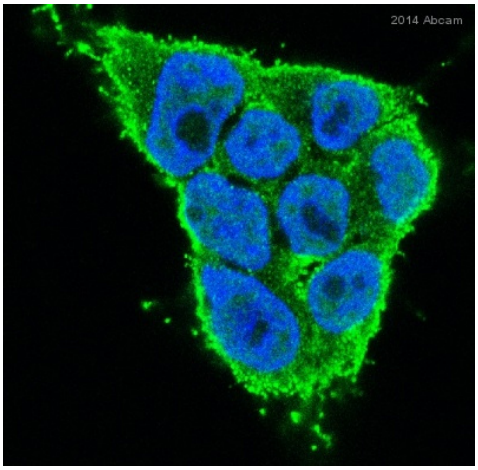
Lysates/proteins at 20 µg per lane.

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

Predicted band size: 94 kDa
Observed band size: 94 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

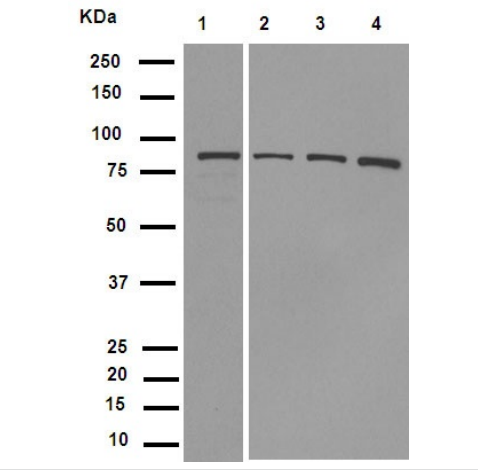
Diluting buffer and concentration: 5% NFDM /TBST.



Immunocytochemistry/ Immunofluorescence - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

This image is courtesy of an anonymous Abreview

Unpurified ab109307 staining Axin 2 in 293T cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde, permeabilized with 1% Triton X-100 and blocked with 3% BSA for 1 hour at room temperature. Samples were incubated with primary antibody (1/50 in PBS + 3% BSA) for 16 hours. An Alexa Fluor® 488-conjugated donkey anti-rabbit IgG polyclonal (1/500) was used as the secondary antibody.



Western blot - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

All lanes : Anti-Axin 2 antibody [EPR2005(2)] (ab109307) at 1/1000 dilution (purified)

Lane 1 : SW480 cell lysate
Lane 2 : C6 cell lysate
Lane 3 : PC-12 cell lysate
Lane 4 : NIH/3T3 cell lysate

Lysates/proteins at 20 µg per lane.

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

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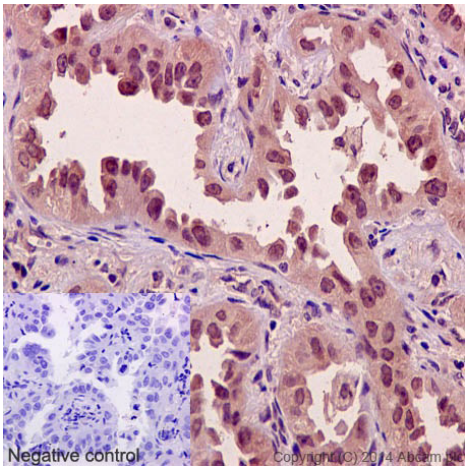
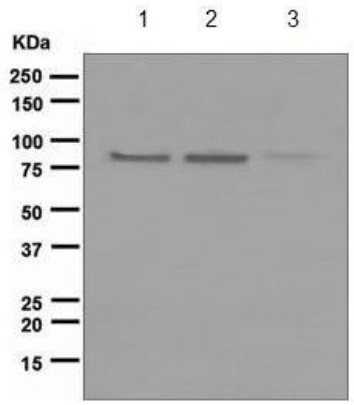
Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue labelling Axin 2 with purified ab109307 at 1/150. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



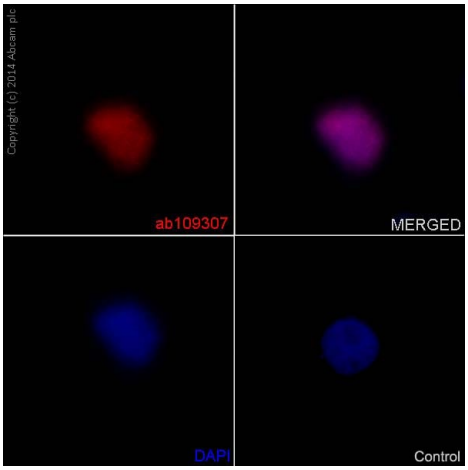
Western blot - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

All lanes : Anti-Axin 2 antibody [EPR2005(2)] (ab109307) at 1/1000 dilution (unpurified)

Lane 1 : MCF7 cell lysates
Lane 2 : SW480 cell lysates
Lane 3 : PC3 cell lysates

Lysates/proteins at 10 µg per lane.

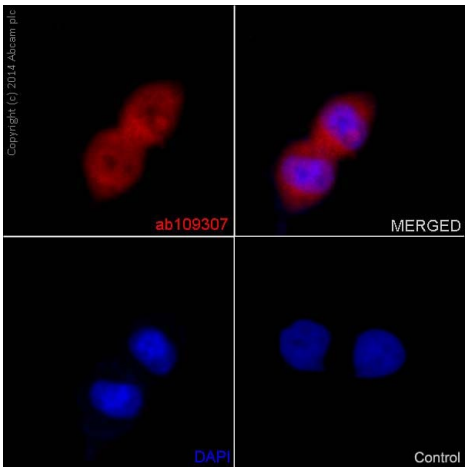
Predicted band size: 94 kDa
Observed band size: 95 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

Immunocytochemistry/Immunofluorescence analysis of LnCap cells labelling Axin 2 with unpurified ab109307 at 1/150. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/150) and secondary antibody, ab150113, an Alexa Fluor® 488-conjugated goat anti-mouse IgG (1/500).



Immunocytochemistry/ Immunofluorescence - Anti-Axin 2 antibody [EPR2005(2)] (ab109307)

Immunocytochemistry/Immunofluorescence analysis of LnCap cells labelling Axin 2 with purified ab109307 at 1/150. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

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