

Product datasheet

Anti-Axin 1 antibody ab115205

★★★★★ [1 Abreviews](#) [3 References](#) [2 Images](#)

Overview

Product name	Anti-Axin 1 antibody
Description	Goat polyclonal to Axin 1
Host species	Goat
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat, Horse, Chicken, Cow, Zebrafish, Baboon, Rhesus monkey



Immunogen	Synthetic peptide: FEEKIGKVEKVD (with a Cysteine residue linker), corresponding to C terminal amino acids 850-862 of Human Axin 1
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 [Run BLAST with](#)

 [Run BLAST with](#)

Positive control	Human adrenal tissue
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General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>
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Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.5% BSA, 99% Tris buffered saline
Purity	Immunogen affinity purified
Clonality	Polyclonal

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab115205 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
IHC-P	★★★★★ (1)	Use a concentration of 3.75 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Component of the beta-catenin destruction complex required for regulating CTNNB1 levels through phosphorylation and ubiquitination, and modulating Wnt-signaling. Controls dorsoventral patterning via two opposing effects; down-regulates CTNNB1 to inhibit the Wnt signaling pathway and ventralize embryos, but also dorsalizes embryos by activating a Wnt-independent JNK signaling pathway. In Wnt signaling, probably facilitates the phosphorylation of CTNNB1 and APC by GSK3B. Likely to function as a tumor suppressor. Facilitates the phosphorylation of TP53 by HIPK2 upon ultraviolet irradiation. Enhances TGF-beta signaling by recruiting the RNF111 E3 ubiquitin ligase and promoting the degradation of inhibitory SMAD7. Also component of the AXIN1-HIPK2-TP53 complex which controls cell growth, apoptosis and development.

Tissue specificity

Ubiquitously expressed.

Involvement in disease

Hepatocellular carcinoma
Caudal duplication anomaly

Sequence similarities

Contains 1 DIX domain.
Contains 1 RGS domain.

Domain

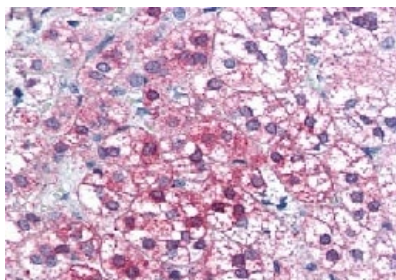
The tankyrase-binding motif (also named TBD) is required for interaction with tankyrase TNKS and TNKS2.

Post-translational modifications

Phosphorylation and dephosphorylation of AXIN1 regulates assembly and function of the beta-catenin complex. Phosphorylated by CK1 and GSK3B. Dephosphorylated by PPP1CA and PPP2CA. Phosphorylation by CK1 enhances binding of GSK3B to AXIN1.
ADP-ribosylated by tankyrase TNKS and TNKS2. Poly-ADP-ribosylated protein is recognized by RNF146, followed by ubiquitination at 'Lys-48' 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. Sumoylation at Lys-857 and Lys-860 prevents ubiquitination and degradation. Sumoylation is required for AXIN1-mediated JNK activation.
Deubiquitinated by USP34, deubiquitinated downstream of beta-catenin stabilization step: deubiquitination is important for nuclear accumulation during Wnt signaling to positively regulate beta-catenin (CTNBB1)-mediated transcription.

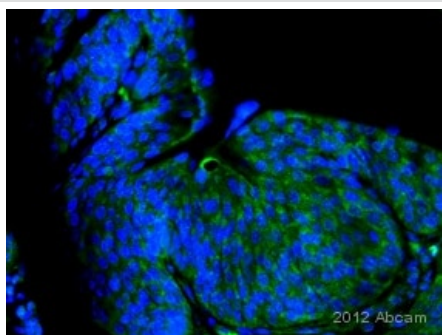
Cellular localization

Cytoplasm. Nucleus. Membrane. Cell membrane. MACF1 is required for its translocation to cell membrane (By similarity). On UV irradiation, translocates to the nucleus and colocalizes with DAAX (PubMed:17210684).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Axin 1 antibody (ab115205)

ab114205, at 3.75 ug/ml, staining Axin-1 in formalin-fixed, paraffin-embedded Human adrenal tissue by immunohistochemistry.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Axin 1 antibody (ab115205)

This image is courtesy of an anonymous Abreview

Immunohistochemical analysis of rat bladder tissue, staining Axin 1 with ab115205.

Tissue was fixed with formalin and blocked with 5000 µg/ml BSA for 30 minutes at 22°C; antigen retrieval was by heat mediation in citrate buffer (pH 6). Samples were incubated with primary antibody (1/100 in BSA) for 1 hour at 22°C. An AlexaFluor®488-conjugated donkey anti-goat polyclonal IgG (1/400) was used as the secondary antibody.

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