

**AXIN1 Antibody**  
Catalog # ASC11217**Specification****AXIN1 Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">O15169</a>
Other Accession	<a href="#">AAC51624</a> , <a href="#">2252820</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	AXIN1 antibody can be used for detection of AXIN1 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunofluorescence starting at 20 µg/mL. For immunofluorescence start at 20 µg/mL.

**AXIN1 Antibody - Additional Information**

Gene ID	8312
Target/Specificity	AXIN1;

**Reconstitution & Storage**

AXIN1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

AXIN1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**AXIN1 Antibody - Protein Information**

Name AXIN1

Synonyms AXIN

**Function**

Component of the beta-catenin destruction complex required for regulating CTNNB1 levels through phosphorylation and ubiquitination, and modulating Wnt-signaling (PubMed: [12192039](http://www.uniprot.org/citations/12192039), PubMed: [27098453](http://www.uniprot.org/citations/27098453), PubMed: [28829046](http://www.uniprot.org/citations/28829046)). 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 (PubMed: [12192039](http://www.uniprot.org/citations/12192039)). In Wnt

signaling, probably facilitates the phosphorylation of CTNNB1 and APC by GSK3B (PubMed:<a href="http://www.uniprot.org/citations/12192039" target="\_blank">12192039</a>). Likely to function as a tumor suppressor. Enhances TGF-beta signaling by recruiting the RNF111 E3 ubiquitin ligase and promoting the degradation of inhibitory SMAD7 (PubMed:<a href="http://www.uniprot.org/citations/16601693" target="\_blank">16601693</a>). Also a component of the AXIN1- HIPK2-TP53 complex which controls cell growth, apoptosis and development (PubMed:<a href="http://www.uniprot.org/citations/17210684" target="\_blank">17210684</a>). Facilitates the phosphorylation of TP53 by HIPK2 upon ultraviolet irradiation (PubMed:<a href="http://www.uniprot.org/citations/17210684" target="\_blank">17210684</a>).

#### Cellular Location

Cytoplasm. Nucleus. Membrane {ECO:0000250|UniProtKB:O35625} Cell membrane {ECO:0000250|UniProtKB:O35625}. Note=MACF1 is required for its translocation to cell membrane (By similarity). On UV irradiation, translocates to the nucleus and colocalizes with DAAX (PubMed:17210684). {ECO:0000250|UniProtKB:O35625, ECO:0000269|PubMed:17210684}

#### Tissue Location

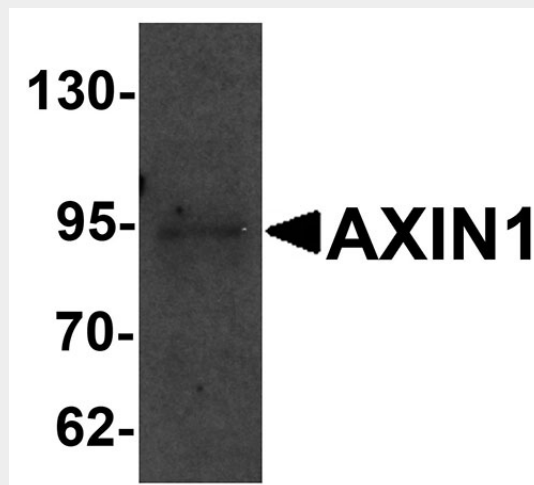
Ubiquitously expressed.

#### AXIN1 Antibody - Protocols

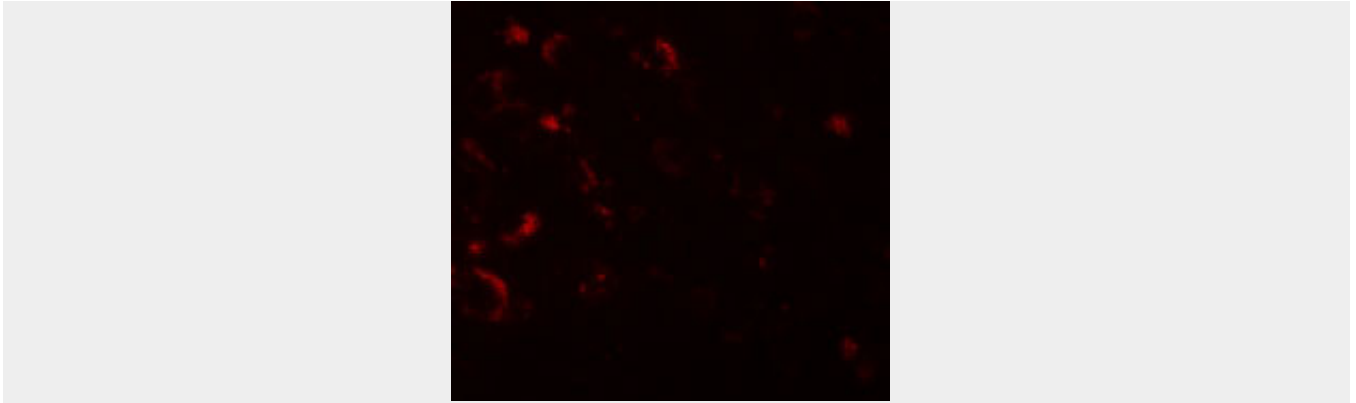
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### AXIN1 Antibody - Images



Western blot analysis of AXIN1 in SK-N-SH cell lysate with AXIN1 antibody at 1 µg/mL.



Immunofluorescence of AXIN1 in human brain tissue with AXIN1 antibody at 20  $\mu$ g/mL.

### **AXIN1 Antibody - Background**

**AXIN1 Antibody:** AXIN1 is a cytoplasmic protein which contains a regulation of G-protein signaling (RGS) domain and a dishevelled and axin (DIX) domain and is thought to function as a negative regulator of the WNT signaling pathway that regulates embryonic axis formation. AXIN1 interacts with adenomatous polyposis coli (APC), beta-catenin, glycogen synthase kinase 3 beta, forming a tetrameric complex resulting in the regulation of the stabilization of beta-catenin. Mutations in the AXIN1 gene have been associated various carcinomas, indicating that it also functions as a tumor suppressor.

### **AXIN1 Antibody - References**

Zeng L, Fagotto F, Zhang T, et al. The mouse Fused locus encodes Axin, an inhibitor of the Wnt signaling pathway that regulates embryonic axis formation. *Cell*1997; 90:181-92.  
Kishida S, Yamamoto H, Ikeda S, et al. Axin, a negative regulator of the wnt signaling pathway, directly interacts with adenomatous polyposis coli and regulates the stabilization of beta-catenin. *J. Biol. Chem.*1998; 273:10823-6.  
Nakamura T, Hamada F, Ishidate T, et al. Axin, an inhibitor of the Wnt signaling pathway, interacts with beta-catenin, GSK-3beta and APC and reduces the beta-catenin level. *Genes Cells*1998; 3:395-403.  
Salahshor S and Woodgett JR. The links between axin and carcinogenesis. *J. Clin. Pathol.*2005; 58:225-36.