

**AXIN1 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP17201c****Specification**

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**AXIN1 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [O15169](#)**AXIN1 Antibody (Center) Blocking Peptide - Additional Information**

Gene ID 8312

**Other Names**

Axin-1, Axis inhibition protein 1, hAxin, AXIN1, AXIN

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**AXIN1 Antibody (Center) Blocking Peptide - 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:<a href="http://www.uniprot.org/citations/12192039" target="\_blank">12192039</a>, PubMed:<a href="http://www.uniprot.org/citations/27098453" target="\_blank">27098453</a>, PubMed:<a href="http://www.uniprot.org/citations/28829046" target="\_blank">28829046</a>). 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:<a href="http://www.uniprot.org/citations/12192039" target="\_blank">12192039</a>). 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>).

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 (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **AXIN1 Antibody (Center) Blocking Peptide - Images**

### **AXIN1 Antibody (Center) Blocking Peptide - Background**

This gene encodes a cytoplasmic protein which contains a regulation of G-protein signaling (RGS) domain and a dishevelled and axin (DIX) domain. The encoded protein interacts with adenomatous polyposis coli, catenin beta-1, glycogen synthase kinase 3 beta, protein phosphatase 2, and itself. This protein functions as a negative regulator of the wingless-type MMTV integration site family, member 1 (WNT) signaling pathway and can induce apoptosis. The crystal structure of a portion of this protein, alone and in a complex with other proteins, has been resolved. Mutations in this gene have been associated with hepatocellular carcinoma, hepatoblastomas, ovarian endometrioid adenocarcinomas, and medullary blastomas. Two transcript variants encoding distinct isoforms have been identified for this gene.

### **AXIN1 Antibody (Center) Blocking Peptide - References**

Sue Ng, S., et al. Biol. Chem. 391 (2-3), 171-180 (2010) :Yang, L.H., et al. Mol. Cancer 9, 25 (2010) :Wooten, E.C., et al. PLoS ONE 5 (1), E8830 (2010) :Kameoka, M., et al. AIDS Res. Hum. Retroviruses 25(10):1005-1011(2009) Li, Q., et al. Nat. Cell Biol. 11(9):1128-1134(2009)