

YAP1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1673a**Specification****YAP1 Antibody - Product Information**

Application	WB, IHC, FC, E
Primary Accession	P46937
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1

Description

This gene encodes the human ortholog of chicken YAP protein which binds to the SH3 domain of the Yes proto-oncogene product. This protein contains a WW domain that is found in various structural, regulatory and signaling molecules in yeast, nematode, and mammals, and may be involved in protein-protein interaction.

Immunogen

Purified recombinant fragment of human YAP1 expressed in E. Coli.

Formulation

Purified antibody in PBS with 0.05% sodium azide

YAP1 Antibody - Additional Information

Gene ID 10413

Other Names

Transcriptional coactivator YAP1, Yes-associated protein 1, Protein yorkie homolog, Yes-associated protein YAP65 homolog, YAP1, YAP65

Dilution

WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400
E~~1/10000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

YAP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

YAP1 Antibody - Protein Information

Name YAP1 ([HGNC:16262](#))

Synonyms YAP65

Function

Transcriptional regulator with dual roles as a coactivator and corepressor. Critical downstream regulatory target in the Hippo signaling pathway, crucial for organ size control and tumor suppression by restricting proliferation and promoting apoptosis (PubMed:[17974916](http://www.uniprot.org/citations/17974916), PubMed:[18280240](http://www.uniprot.org/citations/18280240), PubMed:[18579750](http://www.uniprot.org/citations/18579750), PubMed:[21364637](http://www.uniprot.org/citations/21364637), PubMed:[30447097](http://www.uniprot.org/citations/30447097)). The Hippo signaling pathway core involves a kinase cascade featuring STK3/MST2 and STK4/MST1, along with its regulatory partner SAV1, which phosphorylates and activates LATS1/2 in complex with their regulatory protein, MOB1. This activation leads to the phosphorylation and inactivation of the YAP1 oncoprotein and WWTR1/TAZ (PubMed:[18158288](http://www.uniprot.org/citations/18158288)). Phosphorylation of YAP1 by LATS1/2 prevents its nuclear translocation, thereby regulating the expression of its target genes (PubMed:[18158288](http://www.uniprot.org/citations/18158288), PubMed:[26598551](http://www.uniprot.org/citations/26598551), PubMed:[34404733](http://www.uniprot.org/citations/34404733)). The transcriptional regulation of gene expression requires TEAD transcription factors and modulates cell growth, anchorage-independent growth, and induction of epithelial- mesenchymal transition (EMT) (PubMed:[18579750](http://www.uniprot.org/citations/18579750)). Plays a key role in tissue tension and 3D tissue shape by regulating the cortical actomyosin network, acting via ARHGAP18, a Rho GTPase activating protein that suppresses F-actin polymerization (PubMed:[25778702](http://www.uniprot.org/citations/25778702)). It also suppresses ciliogenesis by acting as a transcriptional corepressor of TEAD4 target genes AURKA and PLK1 (PubMed:[25849865](http://www.uniprot.org/citations/25849865)). In conjunction with WWTR1, regulates TGFβ1-dependent SMAD2 and SMAD3 nuclear accumulation (By similarity). Synergizes with WBP2 to enhance PGR activity (PubMed:[16772533](http://www.uniprot.org/citations/16772533)).

Cellular Location

Cytoplasm. Nucleus. Cell junction, tight junction {ECO:0000250|UniProtKB:A0A8C0NGY6}. Cell membrane. Note=Both phosphorylation and cell density can regulate its subcellular localization (PubMed:18158288, PubMed:20048001). Phosphorylation sequesters it in the cytoplasm by inhibiting its translocation into the nucleus (PubMed:18158288, PubMed:20048001, PubMed:34404733). At low density, predominantly nuclear and is translocated to the cytoplasm at high density (PubMed:18158288, PubMed:20048001, PubMed:25849865). PTPN14 induces translocation from the nucleus to the cytoplasm (PubMed:22525271). In the nucleus, phosphorylation by PRP4K induces nuclear exclusion (PubMed:29695716). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm at the blastocyst and epiblast stages (By similarity) Localizes to the cytoplasm and tight junctions following interaction with AMOT isoform 1 (PubMed:21205866). Localizes to tight junctions following interaction with AMOTL2 (By similarity). Translocates to the nucleus in the presence of SNAIL1 (By similarity). Found at the cell membrane in keratinocytes in response to mechanical strain (PubMed:31835537). {ECO:0000250|UniProtKB:A0A8C0NGY6, ECO:0000250|UniProtKB:P46938, ECO:0000269|PubMed:18158288, ECO:0000269|PubMed:20048001, ECO:0000269|PubMed:21205866, ECO:0000269|PubMed:22525271, ECO:0000269|PubMed:25849865, ECO:0000269|PubMed:29695716, ECO:0000269|PubMed:31835537, ECO:0000269|PubMed:34404733}

Tissue Location

Increased expression seen in some liver and prostate cancers. Isoforms lacking the transactivation domain found in striatal neurons of patients with Huntington disease (at protein level).

YAP1 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](#)

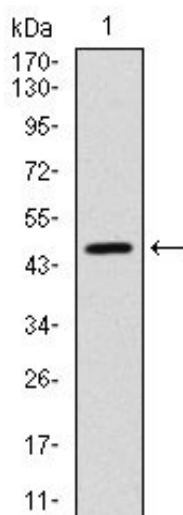
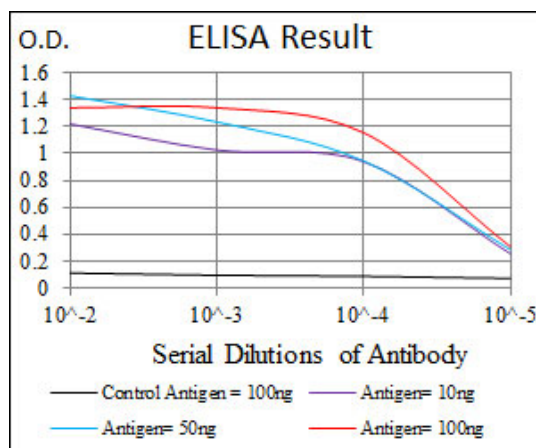


Figure 1: Western blot analysis using YAP1 mAb against human YAP1 (AA: 250-447) recombinant protein. (Expected MW is 54.4 kDa)

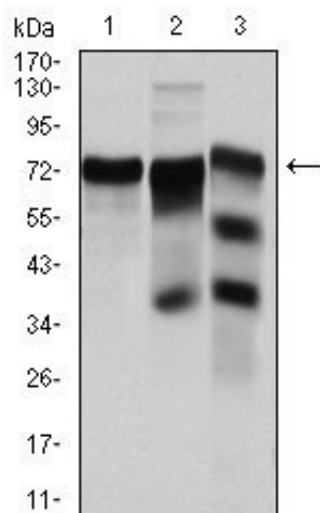


Figure 2: Western blot analysis using YAP1 mouse mAb against HeLa (1), C6 (2) and Cos7 (3) cell lysate.

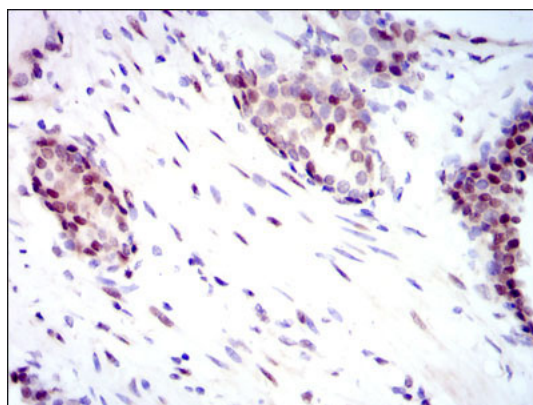


Figure 3: Immunohistochemical analysis of paraffin-embedded prostate cancer tissues using YAP1 mouse mAb with DAB staining.

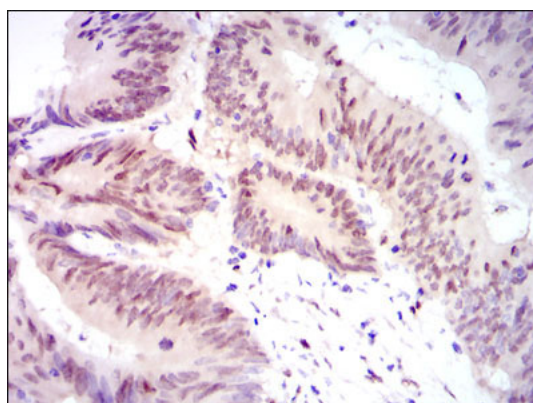


Figure 4: Immunohistochemical analysis of paraffin-embedded rectum cancer tissues using YAP1 mouse mAb with DAB staining.

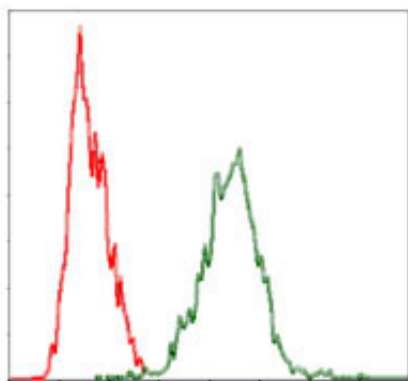


Figure 5: Flow cytometric analysis of Hela cells using YAP1 mouse mAb (green) and negative control (red).

YAP1 Antibody - References

1. Genes Dev. 2009 Dec 1;23(23):2729-41.
2. Nat Cell Biol. 2009 Dec;11(12):1444-50.