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# YAP Antibody (Center S127)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16259c

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P46937 |
| **Other Accession** | Q2EJA0, P46938, P46936, NP_001181973.1, NP_001123617.1 |
| **Reactivity** | Human |
| **Predicted** | Mouse, Rat, Chicken, Bovine, Canine, Rabbit |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB35447 |
| **Calculated MW** | 54462 |
| **Antigen Region** | 104-133 |

## Additional Information

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| **Gene ID** | 10413 |
| **Other Names** | Transcriptional coactivator YAP1, Yes-associated protein 1, Protein yorkie homolog, Yes-associated protein YAP65 homolog, YAP1, YAP65 |
| **Target/Specificity** | This YAP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 104-133 amino acids from the Central region of human YAP. |
| **Dilution** | WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | YAP Antibody (Center S127) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | YAP1 ( HGNC:16262) |
| **Synonyms** | YAP65 |

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| **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, PubMed:18280240, PubMed:18579750, PubMed:21364637, PubMed: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). Phosphorylation of YAP1 by LATS1/2 prevents its nuclear translocation, thereby regulating the expression of its target genes (PubMed:18158288, PubMed:26598551, PubMed: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). 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). It also suppresses ciliogenesis by acting as a transcriptional corepressor of TEAD4 target genes AURKA and PLK1 (PubMed:25849865). In conjunction with WWTR1, regulates TGFB1-dependent SMAD2 and SMAD3 nuclear accumulation (By similarity). Synergizes with WBP2 to enhance PGR activity (PubMed:16772533). Promotes keratinocyte proliferation (PubMed:32369015). |
| **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). |

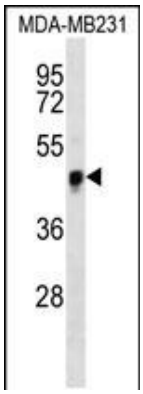
## Background

YAP is 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.

## References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
Wang, Y., et al. Cancer Sci. 101(5):1279-1285(2010)
Liu, A.M., et al. Biochem. Biophys. Res. Commun. 394(3):623-627(2010)
Watt, K.I., et al. Biochem. Biophys. Res. Commun. 393(4):619-624(2010)
Zhao, B., et al. Genes Dev. 24(1):72-85(2010)

## Images




YAP Antibody (S127) (Cat. #AP16259c) western blot analysis in MDA-MB231 cell line lysates (35ug/lane).This demonstrates the YAP antibody detected the YAP protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.