

Anti-YAP1 Picoband Antibody
Catalog # ABO12652**Specification**

Anti-YAP1 Picoband Antibody - Product Information

Application	WB
Primary Accession	P46937
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Transcriptional coactivator YAP1(YAP1) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-YAP1 Picoband 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

Calculated MW

54462 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cytoplasm . Nucleus . Both phosphorylation and cell density can regulate its subcellular localization. Phosphorylation sequesters it in the cytoplasm by inhibiting its translocation into the nucleus. At low density, predominantly nuclear and is translocated to the cytoplasm at high density (PubMed:18158288, PubMed:20048001). PTPN14 induces translocation from the nucleus to the cytoplasm (PubMed:22525271). .

Tissue Specificity

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). .

Protein Name

Transcriptional coactivator YAP1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human YAP1 (62-97aa ETDLEALFNAVMNPKTANVPQTVPMRLRKLPDSFFK), identical to the related mouse and rat sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-YAP1 Picoband 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

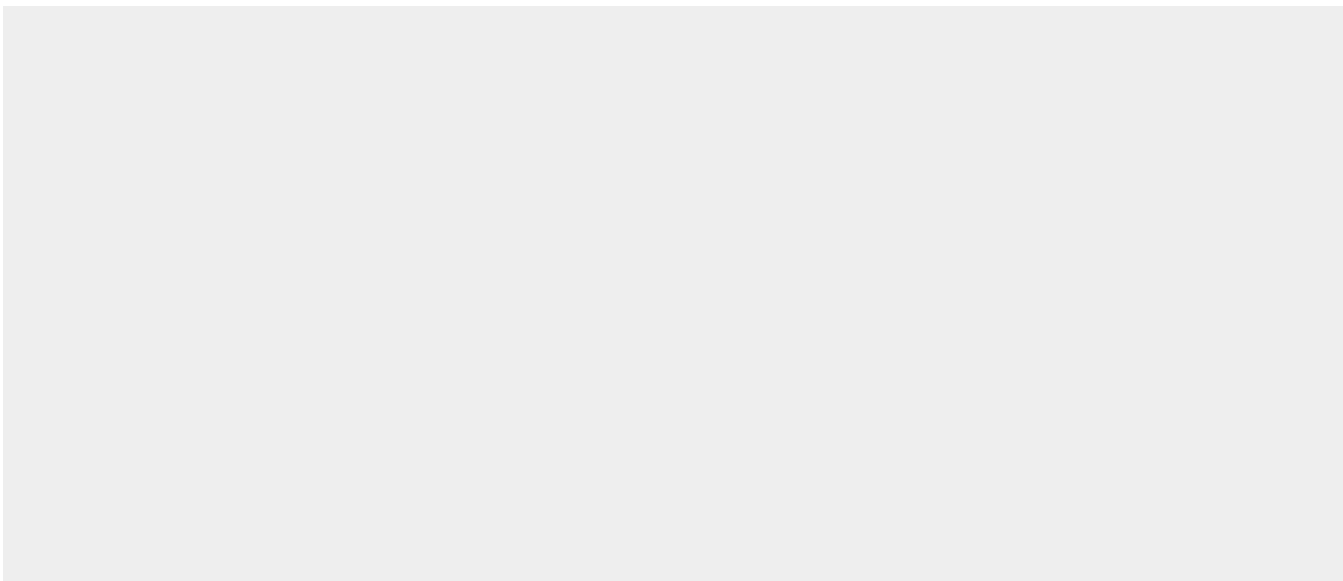
Increased expression seen in some liver and prostate cancers. Isoforms lacking the transactivation domain found in striatal neurons of patients with Huntington disease (at protein level).

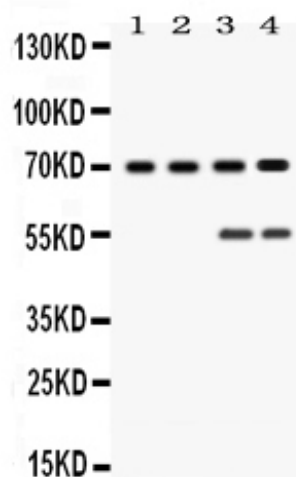
Anti-YAP1 Picoband Antibody - Protocols

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](#)

Anti-YAP1 Picoband Antibody - Images





Western blot analysis of YAP1 expression in rat testis extract (lane 1), mouse ovary extract (lane 2), HELA whole cell lysates (lane 3) and MCF-7 whole cell lysates (lane 4). YAP1 at 54KD; 70KD was detected using rabbit anti-YAP1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12652) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-YAP1 Picoband Antibody - Background

YAP1, also known as YAP or YAP65, is a potent oncogene, which is amplified in various human cancers. This gene encodes a downstream nuclear effector of the Hippo signaling pathway which is involved in development, growth, repair, and homeostasis. It is known to play a role in the development and progression of multiple cancers as a transcriptional regulator of this signaling pathway and may function as a potential target for cancer treatment. Alternative splicing results in multiple transcript variants encoding different isoforms.