

**YAP / YAP1 Antibody (clone 2F12)**  
**Mouse Monoclonal Antibody**  
**Catalog # ALS13462****Specification**

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**YAP / YAP1 Antibody (clone 2F12) - Product Information**

Application	WB, IF, IHC
Primary Accession	<a href="#">P46937</a>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	54kDa KDa

**YAP / YAP1 Antibody (clone 2F12) - Additional Information****Gene ID** 10413**Other Names**

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

**Reconstitution & Storage**

Store at -20°C. Aliquot to avoid freeze/thaw cycles.

**Precautions**

YAP / YAP1 Antibody (clone 2F12) is for research use only and not for use in diagnostic or therapeutic procedures.

**YAP / YAP1 Antibody (clone 2F12) - Protein Information****Name** YAP1**Synonyms** YAP65**Function**

Transcriptional regulator which can act both as a coactivator and a corepressor and is the critical downstream regulatory target in the Hippo signaling pathway that plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis (PubMed:<a href="http://www.uniprot.org/citations/17974916" target="\_blank">17974916</a>, PubMed:<a href="http://www.uniprot.org/citations/18280240" target="\_blank">18280240</a>, PubMed:<a href="http://www.uniprot.org/citations/18579750" target="\_blank">18579750</a>, PubMed:<a href="http://www.uniprot.org/citations/21364637" target="\_blank">21364637</a>, PubMed:<a href="http://www.uniprot.org/citations/30447097" target="\_blank">30447097</a>). The core of this pathway is composed of a kinase cascade wherein STK3/MST2 and STK4/MST1, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ (PubMed:<a href="http://www.uniprot.org/citations/18158288" target="\_blank">18158288</a>). Plays a key role in tissue tension and 3D tissue shape by

regulating cortical actomyosin network formation. Acts via ARHGAP18, a Rho GTPase activating protein that suppresses F-actin polymerization (PubMed:<a href="http://www.uniprot.org/citations/25778702" target="\_blank">25778702</a>). Plays a key role in controlling cell proliferation in response to cell contact. Phosphorylation of YAP1 by LATS1/2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration (PubMed:<a href="http://www.uniprot.org/citations/18158288" target="\_blank">18158288</a>). The presence of TEAD transcription factors are required for it to stimulate gene expression, cell growth, anchorage- independent growth, and epithelial mesenchymal transition (EMT) induction (PubMed:<a href="http://www.uniprot.org/citations/18579750" target="\_blank">18579750</a>). Suppresses ciliogenesis via acting as a transcriptional corepressor of the TEAD4 target genes AURKA and PLK1 (PubMed:<a href="http://www.uniprot.org/citations/25849865" target="\_blank">25849865</a>). In conjunction with WWTR1, involved in the regulation of TGFB1-dependent SMAD2 and SMAD3 nuclear accumulation (By similarity).

### Cellular Location

Cytoplasm. Nucleus. Cell junction {ECO:0000250|UniProtKB:P46938}. 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). 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). 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). {ECO:0000250|UniProtKB:P46938, ECO:0000269|PubMed:18158288, ECO:0000269|PubMed:20048001, ECO:0000269|PubMed:22525271, ECO:0000269|PubMed:25849865}

### Tissue Location

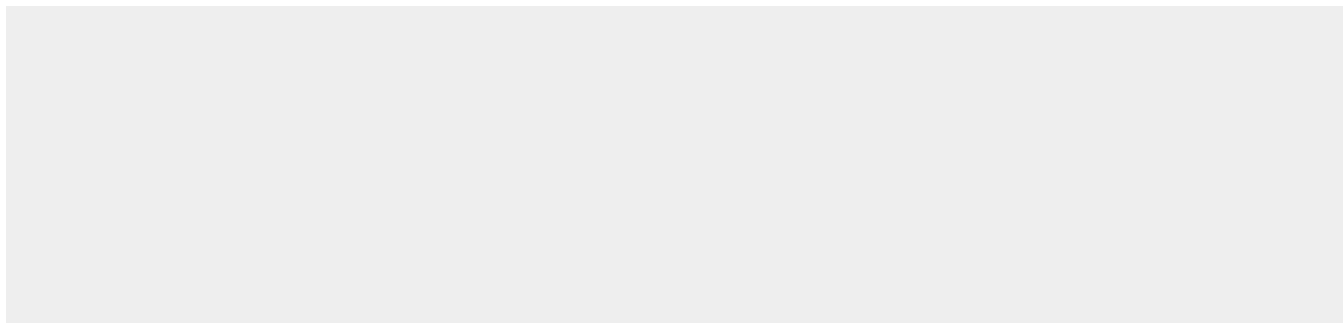
Increased expression seen in some liver and prostate cancers. Isoforms lacking the transactivation domain found in striatal neurons of patients with Huntington disease (at protein level).

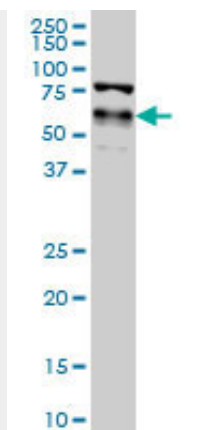
## YAP / YAP1 Antibody (clone 2F12) - Protocols

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

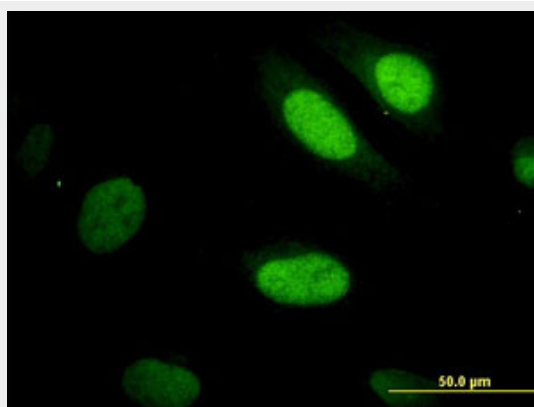
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## YAP / YAP1 Antibody (clone 2F12) - Images

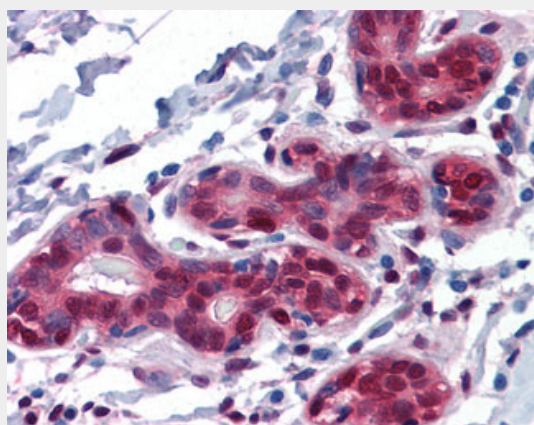




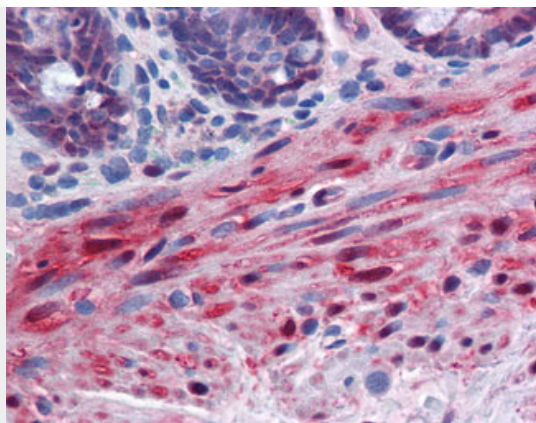
YAP1 monoclonal antibody clone 2F12 Western blot of YAP1 expression in HeLa NE.



Immunofluorescence of monoclonal antibody to YAP1 on HeLa cell (antibody concentration 30 ug/ml).



Anti-YAP1 antibody IHC of human breast.



Anti-YAP1 antibody IHC of human colon, muscularis mucosa.

#### **YAP / YAP1 Antibody (clone 2F12) - Background**

Transcriptional regulator which can act both as a coactivator and a corepressor and is the critical downstream regulatory target in the Hippo signaling pathway that plays a pivotal role in organ size control and tumor suppression by restricting proliferation and promoting apoptosis. The core of this pathway is composed of a kinase cascade wherein STK3/MST2 and STK4/MST1, in complex with its regulatory protein SAV1, phosphorylates and activates LATS1/2 in complex with its regulatory protein MOB1, which in turn phosphorylates and inactivates YAP1 oncoprotein and WWTR1/TAZ. Plays a key role to control cell proliferation in response to cell contact. Phosphorylation of YAP1 by LATS1/2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. The presence of TEAD transcription factors are required for it to stimulate gene expression, cell growth, anchorage-independent growth, and epithelial mesenchymal transition (EMT) induction. Isoform 2 and isoform 3 can activate the C-terminal fragment (CTF) of ERBB4 (isoform 3).

#### **YAP / YAP1 Antibody (clone 2F12) - References**

Sudol M.,et al.J. Biol. Chem. 270:14733-14741(1995).  
Komuro A.,et al.J. Biol. Chem. 278:33334-33341(2003).  
Inazawa J.,et al.Submitted (JUN-2010) to the EMBL/GenBank/DDBJ databases.  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Taylor T.D.,et al.Nature 440:497-500(2006).