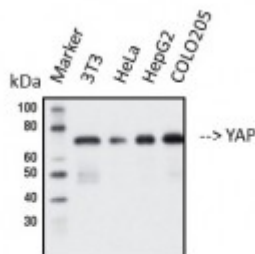


## Anti-YAP antibody



Western Blot (WB) analysis of 1)3T3, 2)HeLa, 3)HepG2, 4)COLO205 cells using YAP antibody(STJ96289).



### Description

YAP is a protein encoded by the YAP1 gene which is approximately 54,5 kDa. YAP is localised to the cytoplasm and nucleus. It is involved in the regulation of lipid metabolism, signalling by ERBB4, gene expression and hippo signalling pathway. It is a downstream nuclear effector of the Hippo signalling pathway which is involved in development, growth, repair, homeostasis and tumor suppression by restricting proliferation and promoting apoptosis. The YAP1 gene is known to play a role in the development and progression of multiple cancers as a transcriptional regulator of this signalling pathway and may function as a potential target for cancer treatment. YAP is expressed in the liver, lung, nervous system, pancreas and skin. Mutations in the YAP1 gene may result in Coloboma, cleft lip or palate and Huntington disease. STJ96289 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of YAP protein.

<b>Model</b>	STJ96289
<b>Host</b>	Rabbit
<b>Reactivity</b>	Human, Mouse, Rat
<b>Applications</b>	ELISA, IF, IHC, WB
<b>Immunogen</b>	Synthesized peptide derived from human YAP
<b>Immunogen Region</b>	250-330 aa, Internal
<b>Gene ID</b>	<a href="#">10413</a>
<b>Gene Symbol</b>	<a href="#">YAP1</a>
<b>Dilution range</b>	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:5000

<b>Specificity</b>	YAP Polyclonal Antibody detects endogenous levels of YAP protein.
<b>Tissue Specificity</b>	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).
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Note</b>	For Research Use Only (RUO).
<b>Protein Name</b>	Transcriptional coactivator YAP1 Yes-associated protein 1 Protein yorkie homolog Yes-associated protein YAP65 homolog
<b>Molecular Weight</b>	70 kDa
<b>Clonality</b>	Polyclonal
<b>Conjugation</b>	Unconjugated
<b>Isotype</b>	IgG
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Concentration</b>	1 mg/ml
<b>Storage Instruction</b>	Store at -20°C, and avoid repeat freeze-thaw cycles.
<b>Database Links</b>	<a href="#">HGNC:16262OMIM:120433</a>
<b>Alternative Names</b>	Transcriptional coactivator YAP1 Yes-associated protein 1 Protein yorkie homolog Yes-associated protein YAP65 homolog
<b>Function</b>	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 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 . 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: Isoform 2 and isoform 3 can activate the C-terminal fragment (CTF) of ERBB4 (isoform 3).
<b>Sequence and Domain Family</b>	The first coiled-coil region mediates most of the interaction with TEAD transcription factors.
<b>Cellular Localization</b>	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 . PTPN14 induces translocation from the nucleus to the cytoplasm .

## **Post-translational Modifications**

Phosphorylated by LATS1 and LATS2; leading to cytoplasmic translocation and inactivation . Phosphorylated by ABL1; leading to YAP1 stabilization, enhanced interaction with TP73 and recruitment onto proapoptotic genes; in response to DNA damage . Phosphorylation at Ser-400 and Ser-403 by CK1 is triggered by previous phosphorylation at Ser-397 by LATS proteins and leads to YAP1 ubiquitination by SCF(beta-TRCP) E3 ubiquitin ligase and subsequent degradation . Phosphorylated at Thr-119, Ser-138, Thr-154, Ser-367 and Thr-412 by MAPK8/JNK1 and MAPK9/JNK2, which is required for the regulation of apoptosis by YAP1 . Ubiquitinated by SCF(beta-TRCP) E3 ubiquitin ligase.