

YAP1 Monoclonal antibody

Catalog Number: 66900-1-Ig

Featured Product

66 Publications

Basic Information

Catalog Number:

66900-1-Ig

Concentration:

1000 ug/ml

Source:

Mouse

Isotype:

IgG1

Immunogen Catalog Number:

AG28194

GenBank Accession Number:

BC038235

GeneID (NCBI):

10413

UNIPROT ID:

P46937

Full Name:

Yes-associated protein 1, 65kDa

Calculated MW:

504 aa, 54 kDa

Observed MW:

65-75 kDa

Purification Method:

Protein G purification

CloneNo.:

3A7A9

Recommended Dilutions:

WB 1:5000-1:50000

IHC 1:1000-1:4000

IF/ICC 1:400-1:1600

Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, sheep

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB: NCI-H1299 cells, HUVEC cells, HeLa cells, HSC-T6 cells, NIH/3T3 cells, MCF-7 cells, LNCaP cells, HEK-293 cells, HepG2 cells, NIH-3T3 cells, 4T1 cells

IHC: human lung cancer tissue, human colon cancer tissue, human liver cancer tissue, human ovary tumor tissue

IF/ICC: HepG2 cells,

Background Information

Yes-associated protein 1 (YAP1) is a 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). 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). Phosphorylation of S381 primes YAP phosphorylation by CK1 δ / ϵ , resulting in activation of a phosphodegron, thus generates a binding surface that interacts with a ubiquitin ligase, and leads to degradation by ubiquitination. (PMID: 20048001). The calculated molecular weight of YAP1 is 54 kDa, but routinely observed at 65-75 kDa by Western Blot (PMID: 28230103, 33264286, 36255405).

Notable Publications

Author	Pubmed ID	Journal	Application
Lei Hong	34692767	Front Mol Biosci	WB
Mengjie Li	34845376	Oncogene	WB,IF
Jer-Hwa Chang	34852269	Chem Biol Interact	IHC,IF

Storage

Storage:

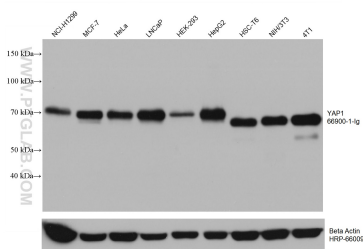
Store at -20°C. Stable for one year after shipment.

Storage Buffer:

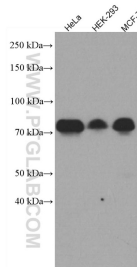
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

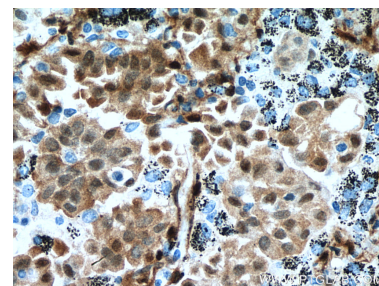
Selected Validation Data



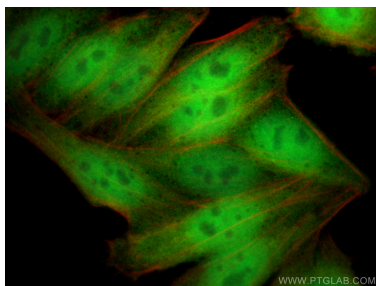
Various lysates were subjected to SDS PAGE followed by western blot with 66900-1-Ig (YAP1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and reblotted with HRP-conjugated Beta Actin Monoclonal antibody (HRP-66009) as loading control.



Various lysates were subjected to SDS PAGE followed by western blot with 66900-1-Ig (YAP1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66900-1-Ig (YAP1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using YAP1 antibody (66900-1-Ig, Clone: 3A7A9) at dilution of 1:800 and Multi-rAb CoraLite® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002), CL594-Phalloidin (red).