abcam

## Product datasheet

# Anti-YAP1 antibody ab39361

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### Overview

| | |
|---|---|
| **Product name** | Anti-YAP1 antibody |
| **Description** | Rabbit polyclonal to YAP1 |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** IHC-P, WB, ICC/IF |
| **Species reactivity** | **Reacts with:** Mouse, Rat, Human |
| **Immunogen** | Synthetic peptide conjugated to KLH derived from within residues 50 - 150 of Human YAP1.Read Abcam's proprietary immunogen policy(Peptide available as ab39360.) |
| **Positive control** | Purchase matching WB positive control: **Recombinant Human YAP1 protein**<br>WB: Caco2 cells. IHC-P: Human colon adenocarcinoma. ICC/IF: HCT116 and Hela cells. |

### Properties

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| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. |
| **Storage buffer** | Preservative: 0.02% Sodium Azide<br>Constituents: 1% BSA, PBS, pH 7.4 |
| **Purity** | Immunogen affinity purified |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

### Applications

**The Abpromise guarantee** Our Abpromise guarantee covers the use of ab39361 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

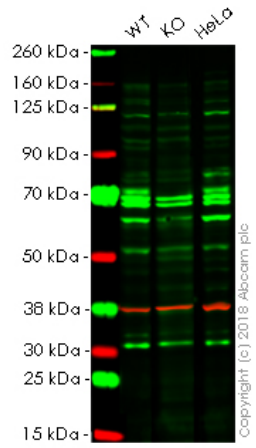
| Application | Abreviews | Notes |
|---|---|---|
| | | |

| Application | Abreviews | Notes |
|---|---|---|
| **IHC-P** | ★★★★☆ (2) | Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |
| **WB** | ★★★☆☆ (2) | Use a concentration of 1 µg/ml. Detects a band of approximately 73 kDa (predicted molecular weight: 65 kDa).<br>1% milk blocking recommeded |
| **ICC/IF** | ★★★★★ (2) | Use a concentration of 1 µg/ml. |

## Target

| | |
|---|---|
| **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. The core of this pathway is composed of a kinase cascade wherein MST1/MST2, 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). |
| **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). |
| **Sequence similarities** | Belongs to the YORKIE family.<br>Contains 2 WW domains. |
| **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. |
| **Cellular 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. |

## Images




Western blot - Anti-YAP1 antibody (ab39361)

**All lanes :** Anti-YAP1 antibody (ab39361) at 2 µg/ml

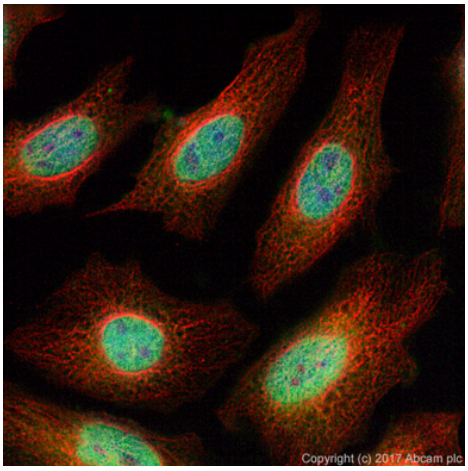
**Lane 1 :** Wild-type HAP1 whole cell lysate
**Lane 2 :** YAP1 knockout HAP1 whole cell lysate
**Lane 3 :** HeLa whole cell lysate

Lysates/proteins at 20 µg per lane.

**Predicted band size:** 65 kDa

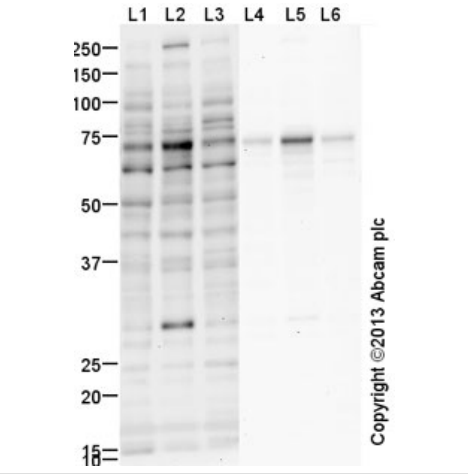
**Lanes 1 - 3**: Merged signal (red and green). Green - ab39361 observed at 54 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab39361 was found to be non-specific when YAP1 knockout samples were used. Wild-type and YAP1 knockout samples were subjected to SDS-PAGE. Ab39361 and ab9484 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 2 µg/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.




Immunocytochemistry/ Immunofluorescence - Anti-YAP1 antibody (ab39361)

ab39361 stained in Hela cells. Cells were fixed with 4% paraformaldehyde (10min) at room temperature and incubated with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% triton for 1h at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab39361 at 1µg/ml and ab7291 (Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control) at 1/1000 dilution overnight at +4°C. The secondary antibodies were ab150120 (pseudo-colored red) and ab150081 (colored green) used at 1 ug/ml for 1hour at room temperature. DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43µM for 1hour at room temperature




Western blot - Anti-YAP1 antibody (ab39361)

**All lanes :** Anti-YAP1 antibody (ab39361) at 1 µg/ml

**Lane 1 :** SW480 (Human colon adenocarcinoma cell line) Whole Cell Lysate with 5% BSA blocking
**Lane 2 :** Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate with 5% BSA blocking
**Lane 3 :** LS147T (Human colon cancer) Whole Cell Lysate with 5% BSA blocking
**Lane 4 :** SW480 (Human colon adenocarcinoma cell line) Whole Cell Lysate with 1% milk blocking
**Lane 5 :** Caco 2 (Human colonic carcinoma cell line) Whole Cell Lysate with 1% milk blocking
**Lane 6 :** LS147T (Human colon cancer) Whole Cell Lysate with 1% milk blocking

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution (Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (HRP))

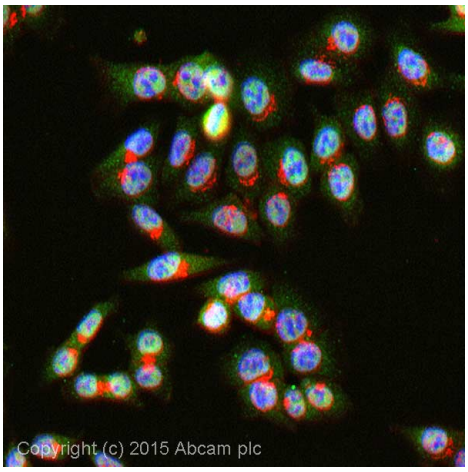
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 65 kDa
**Additional bands at:** 73 kDa. We are unsure as to the identity of these extra bands.

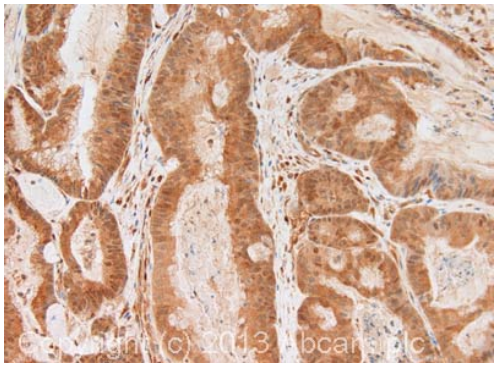
**Exposure time:** 20 minutes

We recommend blocking with 1% milk.




Immunocytochemistry/ Immunofluorescence - Anti-YAP1 antibody (ab39361)

ICC/IF image of ab39361 stained HCT116 cells. The cells were 4% formaldehyde fixed (10 min) then permeabilised using 0.1% PBS-Triton and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to further permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab39361 at 5µg/ml overnight at +4°C. The secondary antibody (pseudo-colored green) was Alexa Fluor® 488 goat anti- rabbit (ab150081) (H+L) preadsorbed, used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1h at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-YAP1 antibody (ab39361)

IHC image of YAP1 staining in human colon adenocarcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab39361, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



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