abcam

ab172373

Anti-YAP1 antibody [EP1674Y] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EP1674Y
Purification technique	Affinity purification Protein A
Concentration	1.035 - 1.043 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information YAP1

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, PubMed:18280240, PubMed:18579750, PubMed:21364637, PubMed: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). Phosphorylation of YAP1 by LATS1/2 prevents its nuclear translocation, thereby regulating the expression of its target genes (PubMed:18158288, PubMed:26598551, PubMed: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). 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). It also suppresses ciliogenesis by acting as a transcriptional corepressor of TEAD4 target genes AURKA and PLK1 (PubMed:25849865). In conjunction with WWTR1, regulates TGFB1-dependent SMAD2 and SMAD3 nuclear accumulation (By similarity). Synergizes with WBP2 to enhance PGR activity (PubMed:16772533). Isoform 2. Activates the C-terminal fragment (CTF) of ERBB4 (isoform 3). Isoform 3. Activates the C-terminal fragment (CTF) of ERBB4 (isoform 3).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab172373 is the carrier-free version of ab52771.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	YAP1 also known as Yes-associated protein 1 is a transcriptional coactivator involved in regulating gene expression. This protein has a mass of approximately 65 kDa and is expressed in various tissues including the liver and heart. YAP1 plays a significant role in the Hippo signaling pathway where it acts by binding to transcriptional enhancer factors such as TEADs to activate gene transcription.
Biological function summary	YAP1 influences cell proliferation and apoptosis by interacting with other proteins to form transcriptional complexes. It participates in promoting organ size and tissue regeneration. YAP1's activity is regulated through phosphorylation primarily at serine 127 which determines its subcellular localization and transcriptional activity. The phosphorylated form often referred to as phospho-YAP remains in the cytoplasm while dephosphorylated YAP1 translocates to the nucleus where it contributes to transcriptional activation.
Pathways	YAP1 is importantly involved in the Hippo signaling pathway and Wnt/β-catenin signaling pathway. In the Hippo pathway kinases LATS1/2 phosphorylate YAP1 preventing its nuclear localization and promoting cell apoptosis when required. In contrast in the Wnt/β-catenin pathway YAP1 interacts with β-catenin to regulate gene expression related to proliferation. Proteins such as TAZ which shares structural and functional similarities with YAP1 often collaborate in these pathways influencing cellular growth and differentiation.
Associated diseases and disorders	YAP1's dysregulation links to cancer development notably in liver and breast cancer. Overexpression or nuclear accumulation of YAP1 leads to uncontrollable cell growth and tumorigenesis. Its interaction with the TEAD transcription factors highlights its significance in oncogenesis. Furthermore YAP1 also connects with pathways involving other proteins like TGF-β contributing to fibrosis-related disorders such as pulmonary fibrosis where unexpected remodeling and excessive tissue growth occur.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

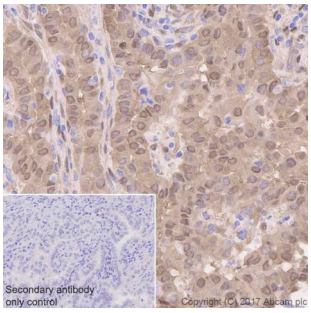
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

---

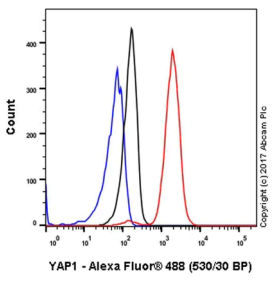
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-YAP1 antibody [EP1674Y] - BSA and Azide free (ab172373)

YAP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-YAP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human thyroid carcinoma tissue sections labeling YAP1 with Purified ab52771 at 1:50 dilution (1.78 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52771).

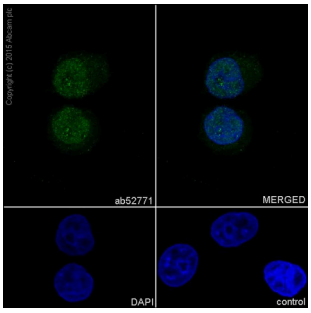


Flow Cytometry (Intracellular) - Anti-YAP1 antibody [EP1674Y] - BSA and Azide free (ab172373)

YAP1 Flow Cytometry (Intracellular) staining using rabbit Anti-YAP1 antibody

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling YAP1 with purified ab52771 at 1/20 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without

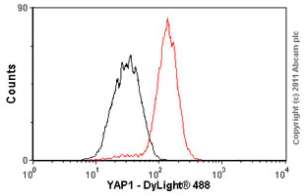
incubation with primary antibody and secondary antibody (Blue). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52771).



Immunocytochemistry/ Immunofluorescence - Anti-YAP1 antibody [EP1674Y] - BSA and Azide free (ab172373)

YAP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-YAP1 antibody

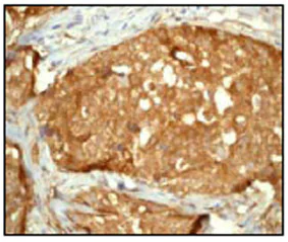
This ICC/IF data was generated using the same anti-YAP1 antibody clone, EP1674Y, in a different buffer formulation (cat# ab52771).
Immunocytochemistry/Immunofluorescence analysis of MCF-7 (human breast carcinoma) labelling YAP1 with purified ab52771 at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilised by 0.1% tritonX-100. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (ab150077). Nuclei counterstained with DAPI (blue).



Flow Cytometry (Intracellular) - Anti-YAP1 antibody [EP1674Y] - BSA and Azide free (ab172373)

YAP1 Flow Cytometry (Intracellular) staining using rabbit Anti-YAP1 antibody

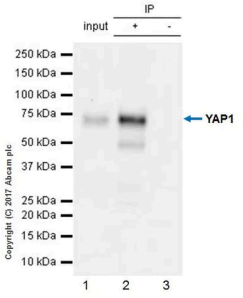
Overlay histogram showing HeLa cells stained with unpurified ab52771 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab52771, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52771).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-YAP1 antibody [EP1674Y] - BSA and Azide free (ab172373)

YAP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-YAP1 antibody

This IHC data was generated using the same anti-YAP1 antibody clone, EP1674Y, in a different buffer formulation (cat# ab52771).
Immunohistochemical staining of YAP1 in paraffin embedded human breast carcinoma tissue using ab52771 at a 1/100 dilution.



Immunoprecipitation - Anti-YAP1 antibody [EP1674Y] - BSA and Azide free (ab172373)

ab52771 (purified) at 1:20 dilution (0.5µg) immunoprecipitating YAP1 in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab52771 & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab52771 in HeLa whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52771).

All lanes:
Immunoprecipitation - Anti-YAP1 antibody [EP1674Y] (ab52771)

Predicted band size: 54 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.