abcam

Product datasheet

Anti-LATS1/WARTS antibody ab234820

2 References 6 Images

Overview

Product name	Anti-LATS1/WARTS antibody
Description	Rabbit polyclonal to LATS1/WARTS
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, ICC/IF, IP
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant fragment corresponding to Human LATS1/WARTS aa 1-280. Database link: **O95835**
Positive control	IHC-P: Human liver cancer, placenta and adrenal gland tissues. ICC/IF: HeLa cells. IP: K562 cell lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol (glycerin, glycerine), PBS
Purity	Protein G purified
Purification notes	Purity >95%.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab234820 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
IHC-P		1/20 - 1/200.
ICC/IF		1/50 - 1/200.
IP		1/200 - 1/2000.

Target

Function Negative regulator of YAP1 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. Phosphorylation of YAP1 by LATS1 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. Acts as a tumor suppressor which plays a critical role in maintenance of ploidy through its actions in both mitotic progression and the G1 tetraploidy checkpoint. Negatively regulates G2/M transition by down-regulating CDK1 kinase activity. Involved in the control of p53 expression. Affects cytokinesis by regulating actin polymerization through negative modulation of LIMK1. May also play a role in endocrine function.

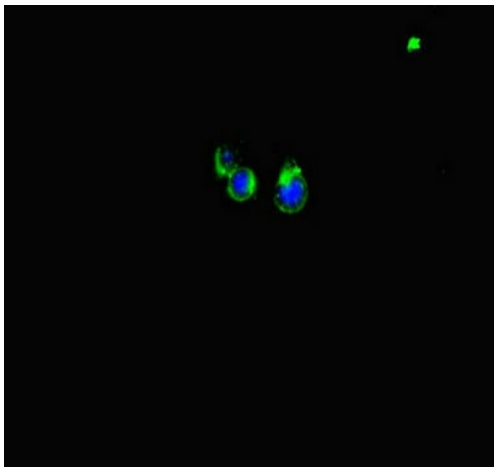
Tissue specificity Expressed in all adult tissues examined except for lung and kidney.

Sequence similarities Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family.
Contains 1 AGC-kinase C-terminal domain.
Contains 1 protein kinase domain.
Contains 1 UBA domain.

Post-translational modifications Autophosphorylated and phosphorylated during M-phase of the cell cycle. Phosphorylated by STK3/MST2 at Ser-909 and Thr-1079, which results in its activation. Phosphorylation at Ser-464 by NUAK1 and NUAK2 leads to decreased protein level and is required to regulate cellular senescence and cellular ploidy.

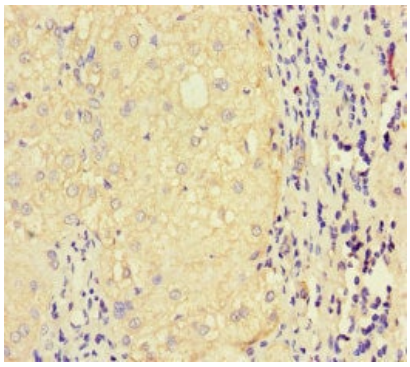
Cellular localization Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Localizes to the centrosomes throughout interphase but migrates to the mitotic apparatus, including spindle pole bodies, mitotic spindle, and midbody, during mitosis.

Images



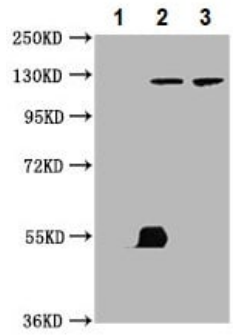
Immunocytochemistry/ Immunofluorescence - Anti-LATS1/WARTS antibody (ab234820)

HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for LATS1/WARTS (green) using ab234820 at 1/100 dilution in ICC/IF, followed by Alexa Fluor 488® congugated Goat Anti-Rabbit IgG (H+L).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LATS1/WARTS antibody (ab234820)

Paraffin-embedded human liver cancer tissue stained for LATS1/WARTS using ab234820 at 1/100 dilution in immunohistochemical analysis.

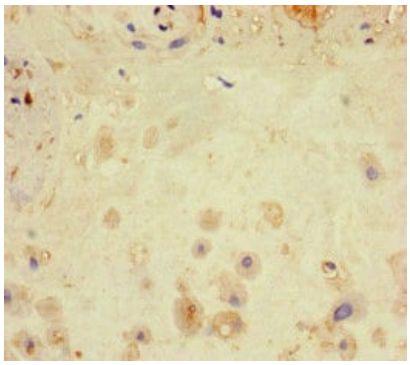


Immunoprecipitation - Anti-LATS1/WARTS antibody (ab234820)

LATS1/WARTS was immunoprecipitated from 500 µg K562 (human chronic myelogenous leukemia cell line from bone marrow) whole cell lysate with 6 µg ab234820.

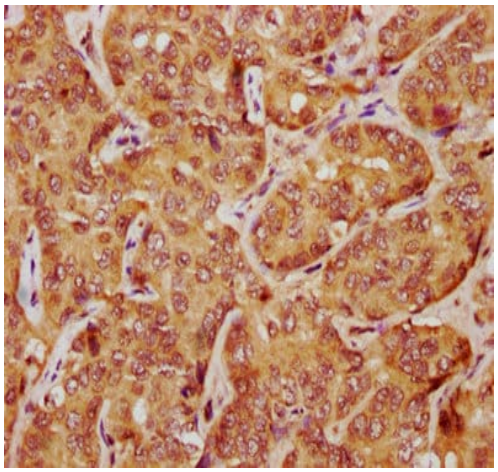
Lane 1: Rabbit control IgG IP (1 µg) in K562 whole cell lysate.
Lane 2: ab234820 IP in K562 whole cell lysate.
Lane 3: K562 whole cell lysate 10 µg (Input).

For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody at 1/2000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LATS1/WARTS antibody (ab234820)

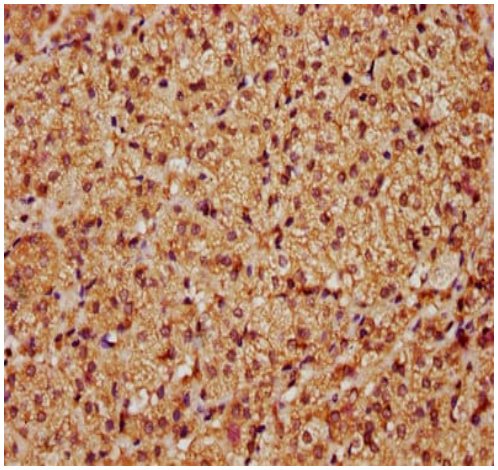
Paraffin-embedded human placenta tissue stained for LATS1/WARTS using ab234820 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LATS1/WARTS antibody (ab234820)

Paraffin-embedded human liver cancer tissue stained for LATS1/WARTS using ab234820 at 1/100 dilution in immunohistochemical analysis.

Performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LATS1/WARTS antibody (ab234820)

Paraffin-embedded human adrenal gland tissue stained for LATS1/WARTS using ab234820 at 1/100 dilution in immunohistochemical analysis.

Performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors