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MOB4A Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7031b

Product Information

Application	IF, IHC-P, WB, E
Primary Accession	Q7L9L4
Other Accession	Q8BPB0, Q3T1J9, Q921Y0, Q9H8S9
Reactivity	Human, Mouse
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	25091
Antigen Region	177-206

Additional Information

Gene ID	92597
Other Names	MOB kinase activator 1B, Mob1 homolog 1A, Mob1A, Mob1B, Mps one binder kinase activator-like 1A, MOB1B, MOB4A, MOBKL1A
Target/Specificity	This MOB4A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 177-206 amino acids from the C-terminal region of human MOB4A.
Dilution	IF~~1:10~50 IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MOB4A Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MOB1B (HGNC:29801)
Synonyms	MOB4A, MOBKL1A

Function	Activator of LATS1/2 in the Hippo signaling pathway which 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 LATS1/2 inhibits its translocation into the nucleus to regulate cellular genes important for cell proliferation, cell death, and cell migration. Stimulates the kinase activity of STK38L.
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Adrenal gland, bone marrow, brain, lung, placenta, prostate, salivary gland, skeletal muscle, testis, thymus, thyroid gland, uterus, colon with mucosa, fetal brain and fetal liver

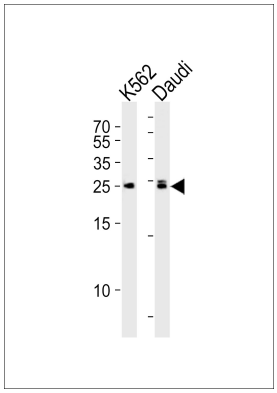
Background

MOB4A is similar to the yeast Mob1 protein. Yeast Mob1 binds Mps1p, a protein kinase essential for spindle pole body duplication and mitotic checkpoint regulation. Mob4A regulates NDR1 and NDR2 kinase activity, widely expressed nuclear serine-threonine kinases that have been implicated in cell proliferation and/or tumor progression.

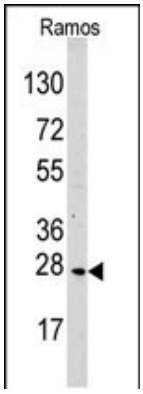
References

Bichsel,S.J.,J. Biol. Chem. 279 (34), 35228-35235 (2004) Devroe,E.,J. Biol. Chem. 279 (23), 24444-24451 (2004)

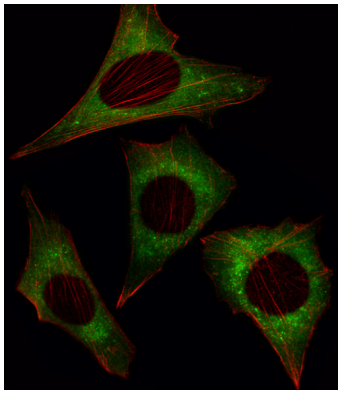
Images



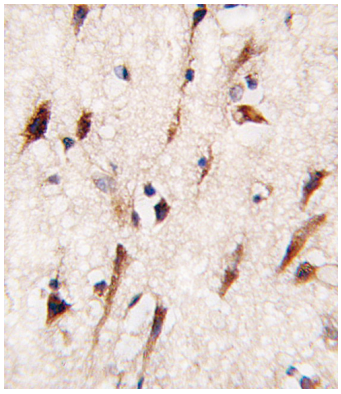
Western blot analysis of lysates from K562, Daudi cell line (from left to right), using MOB4A Antibody (C-term) (Cat. #AP7031b). AP7031b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



MOB4A Antibody (C-term) (Cat. #AP7031b) western blot analysis in Daudi,K562 cell line lysates (35ug/lane).This demonstrates the MOB4A antibody detected the MOB4A protein (arrow).



Fluorescent image of NIH/3T3 cell stained with MOB4A Antibody (C-term)(Cat#AP7031b).NIH/3T3 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with MOB4A primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C).MOB4A immunoreactivity is localized to Cytoplasm significantly.



Formalin-fixed and paraffin-embedded human brain tissue reacted with MOB4A antibody (C-term) (Cat.#AP7031b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Impact of nuclear YAP1 expression in residual cancer after neoadjuvant chemohormonal therapy with docetaxel for high-risk localized prostate cancer
- Cancer susceptibility and embryonic lethality in Mob1a/1b double-mutant mice.
- Mutual dependence of Mob1 and the chromosomal passenger complex for localization during mitosis.