

# MOB1A/B (N-16): sc-161867

## BACKGROUND

Sterile-20 (Ste20) is a serine/threonine kinase in *Saccharomyces cerevisiae* that is involved in relaying signals from G protein-coupled receptors to cytosolic MAP kinase cascades. The mammalian homologs MST1 and MST2, also designated Krs-2 and Krs-1, respectively, are major regulators of cell proliferation and survival during development. MST1/MST2 phosphorylate MOBKL1A and MOBKL1B in an MST1/MST2-dependent manner in mitosis and in response to okadaic acid or H<sub>2</sub>O<sub>2</sub>. MOBKL1A and MOBKL1B, also designated MOB1A and MOB1B, bind to and regulate downstream targets such as the NDR-family protein kinases and LATS1 kinase. Therefore, MOBKL1A and MOBKL1B participate in cell cycle checkpoint control and tumor inhibition.

## REFERENCES

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2. Schinkmann, K., et al. 1997. Cloning and characterization of a human STE20-like protein kinase with unusual cofactor requirements. *J. Biol. Chem.* 272: 28695-28703.
3. Bichsel, S.J., et al. 2004. Mechanism of activation of NDR (nuclear Dbf2-related) protein kinase by the hMOB1 protein. *J. Biol. Chem.* 279: 35228-35235.
4. Bothos, J., et al. 2005. Human LATS1 is a mitotic exit network kinase. *Cancer Res.* 65: 6568-6575.
5. Hergovich, A., et al. 2005. Human NDR kinases are rapidly activated by MOB proteins through recruitment to the plasma membrane and phosphorylation. *Mol. Cell. Biol.* 25: 8259-8272.
6. Hergovich, A., et al. 2006. The human tumour suppressor LATS1 is activated by human MOB1 at the membrane. *Biochem. Biophys. Res. Commun.* 345: 50-58.
7. Sasaki, H., et al. 2007. Human MOB1 expression in non-small-cell lung cancer. *Clin. Lung Cancer* 8: 273-276.
8. Praskova, M., et al. 2008. MOBKL1A/MOBKL1B phosphorylation by MST1 and MST2 inhibits cell proliferation. *Curr. Biol.* 18: 311-321.

## CHROMOSOMAL LOCATION

Genetic locus: MOB1B (human) mapping to 4q13.3, MOB1A (human) mapping to 2p13.1; Mob1a (mouse) mapping to 5 E1, Mob1b (mouse) mapping to 6 C3.

## SOURCE

MOB1A/B (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MOB1B of human origin.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161867 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MOB1A/B (N-16) is recommended for detection of MOB1A and MOB1B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with MOBKL2A, MOBKL2B or MOBKL2C.

MOB1A/B (N-16) is also recommended for detection of MOB1A and MOB1B in additional species, including equine, canine, bovine, porcine and avian.

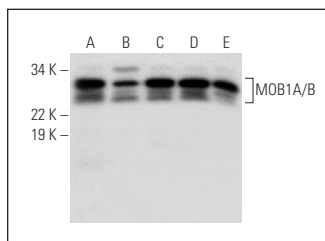
Molecular Weight of MOB1A/B: 25 kDa.

Positive Controls: MOBKL1B (h): 293T Lysate: sc-371897, K-562 whole cell lysate: sc-2203 or T98G cell lysate: sc-2294.

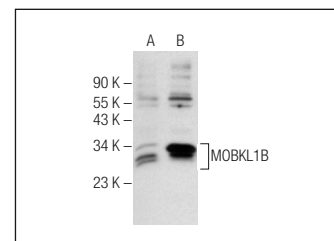
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



MOB1A/B (N-16): sc-161867. Western blot analysis of MOB1A/B expression in K-562 (A), T98G (B), Ramos (C), Raji (D) and Jurkat (E) whole cell lysates.



MOB1A/B (N-16): sc-161867. Western blot analysis of MOB1A/B expression in non-transfected: sc-117752 (A) and human MOB1B transfected: sc-371897 (B) 293T whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.