

# SAV1 (H-200): sc-135394

## BACKGROUND

SAV1 (salvador homolog 1), also known as SAV, WW45 (45 kDa WW domain protein) or WWP4, is a ubiquitously expressed protein with one SARAH (salvador/RASSF/hippo) domain and two WW domains. The SARAH domain is a protein-protein interaction domain that is involved in cell cycle regulation and apoptosis. SAV1 can form homodimers and is believed to function as a scaffold protein of the hippo pathway. Via its SARAH domain, SAV1 is capable of binding Krs-2, a protein that restricts cell proliferation and promotes apoptosis. This interaction is important for the transduction of apoptosis and cell cycle arrest signals. More specifically, SAV1 is essential for the nuclear translocation and activation of Krs-2. Both of these events (Krs-2 translocation and activation) are required for the subsequent phosphorylation of LATS1 and kpm, two major tumor suppressors. Defects in this pathway (the hippo pathway) have been associated with tumorigenesis, suggesting that dysfunctional SAV1 may contribute to tumor development.

## REFERENCES

1. Valverde, P. 2000. Cloning, expression, and mapping of hWW45, a novel human WW domain-containing gene. *Biochem. Biophys. Res. Commun.* 276: 990-998.
2. Tapon, N., et al. 2002. Salvador promotes both cell cycle exit and apoptosis in *Drosophila* and is mutated in human cancer cell lines. *Cell* 110: 467-478.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607203. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Dong, J., et al. 2007. Elucidation of a universal size-control mechanism in *Drosophila* and mammals. *Cell* 130: 1120-1133.
5. Guo, C., et al. 2007. RASSF1A is part of a complex similar to the *Drosophila* hippo/Salvador/LATS tumor-suppressor network. *Curr. Biol.* 17: 700-705.

## CHROMOSOMAL LOCATION

Genetic locus: SAV1 (human) mapping to 14q22.1; Sav1 (mouse) mapping to 12 C2.

## SOURCE

SAV1 (H-200) is a rabbit polyclonal antibody raised against amino acids 1-200 mapping at the N-terminus of SAV1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

SAV1 (H-200) is recommended for detection of SAV1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

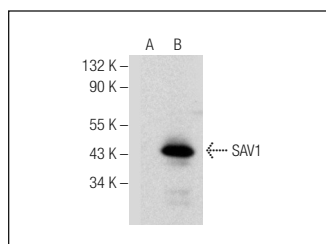
SAV1 (H-200) is also recommended for detection of SAV1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SAV1 siRNA (h): sc-92380, SAV1 siRNA (m): sc-153232, SAV1 shRNA Plasmid (h): sc-92380-SH, SAV1 shRNA Plasmid (m): sc-153232-SH, SAV1 shRNA (h) Lentiviral Particles: sc-92380-V and SAV1 shRNA (m) Lentiviral Particles: sc-153232-V.

Molecular Weight of SAV1: 45 kDa.

Positive Controls: SAV1 (m): 293T Lysate: sc-123362 or HeLa nuclear extract: sc-2120.

## DATA



SAV1 (H-200): sc-135394. Western blot analysis of SAV1 expression in non-transfected: sc-117752 (A) and mouse SAV1 transfected: sc-123362 (B) 293T whole cell lysates.



SAV1 (H-200): sc-135394. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and cells in tubules.

## RESEARCH USE

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

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Try **SAV1 (F-5): sc-374366** or **SAV1 (JJ-6): sc-101205**, our highly recommended monoclonal alternatives to SAV1 (H-200).