

# Sororin (D-11): sc-390900

## BACKGROUND

Sororin, also designated cell division cycle-associated protein 5 (CDCA5) or p35, functions as a regulator of sister chromatid cohesion during mitosis. It interacts with the APC/C complex and is found in a complex consisting of cohesion components SCC-112, MC1L1, SMC3L1, RAD21 and APRIN. The deduced human and mouse Sororin proteins consist of 252 and 264 amino acid residues, respectively, and both contain a KEN box for APC-dependent ubiquitination. Reserach demonstrates a punctated nuclear distribution of Sororin during interphase and a diffuse distribution throughout the cell during mitosis. There is no apparent concentration of Sororin on chromatin in mitotic cells and Sororin levels decrease in synchronized HeLa cells during interphase. The Sororin gene maps to chromosome 11q13.1.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 609374. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Rankin, S. 2005. Sororin, the cell cycle and sister chromatid cohesion. *Cell Cycle* 4: 1039-1042.
3. Rankin, S., Ayad, N.G. and Kirschner, M.W. 2005. Sororin, a substrate of the anaphase-promoting complex, is required for sister chromatid cohesion in vertebrates. *Mol. Cell* 18: 185-200.
4. Sakaue, F., Saito, T., Sato, Y., Asada, A., Ishiguro, K., Hasegawa, M. and Hisanaga, S. 2005. Phosphorylation of FTDP-17 mutant Tau by cyclin-dependent kinase 5 complexed with p35, p25, or p39. *J. Biol. Chem.* 280: 31522-31529.
5. Strock, C.J., Park, J.I., Nakakura, E.K., Bova, G.S., Isaacs, J.T., Ball, D.W. and Nelkin, B.D. 2006. Cyclin-dependent kinase 5 activity controls cell motility and metastatic potential of prostate cancer cells. *Cancer Res.* 66: 7509-7515.
6. Kim, E., Chen, F., Wang, C.C. and Harrison, L.E. 2006. CDK5 is a novel regulatory protein in PPAR $\gamma$  ligand-induced antiproliferation. *Int. J. Oncol.* 28: 191-194.

## CHROMOSOMAL LOCATION

Genetic locus: Cdc5 (mouse) mapping to 19 A.

## SOURCE

Sororin (D-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-178 at the N-terminus of Sororin of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-390900 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Sororin (D-11) is recommended for detection of Sororin (CDCA5) of mouse and rat origin by Western Blotting (starting dilution 1:100, 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).

Sororin (D-11) is also recommended for detection of Sororin (CDCA5) in additional species, including equine and canine.

Suitable for use as control antibody for Sororin siRNA (m): sc-61600, Sororin shRNA Plasmid (m): sc-61600-SH and Sororin shRNA (m) Lentiviral Particles: sc-61600-V.

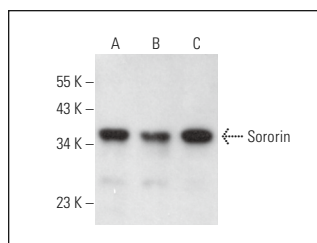
Molecular Weight of Sororin: 28 kDa.

Positive Controls: J774.A1 cell lysate: sc-3802, BYDP whole cell lysate: sc-364368 or RAW 264.7 whole cell lysate: sc-2211.

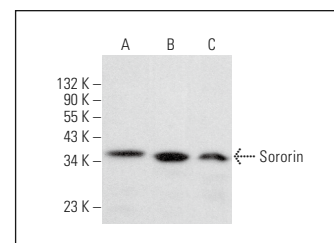
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Sororin (D-11): sc-390900. Western blot analysis of Sororin expression in J774.A1 (A), BYDP (B) and RAW 264.7 (C) whole cell lysates.



Sororin (D-11): sc-390900. Western blot analysis of Sororin expression in RAW 264.7 (A) and Neuro-2A (B) whole cell lysates and NIH/3T3 nuclear extract (C).

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

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