

# SH3D19 (397.2): sc-100852

## BACKGROUND

SH3D19 (SH3 domain-containing protein 19), also known as EBP, EEN-binding protein, EVE1 or Kryn, is a 790 amino acid protein that is widely expressed with highest expression in kidney, heart, lung, liver, skeletal muscle and small intestine. Localized to the cytoplasm and recruited to the nucleus by a fusion protein known as MLL-EEN (mixed-lineage leukemia-endophilin), SH3D19 is thought to play a role in regulating the involvement of ADAM (a disintegrin and metalloproteases) proteins in EGFR (epidermal growth factor receptor)-ligand shedding pathways. SH3D19 contains five SH3 domains and may also function to suppress both Ras-induced cellular transformation and Ras-associated activation of proteins such as Elk-1. Translocation events involving the SH3D19 gene are implicated in acute myeloid leukemia, suggesting a possible role for SH3D19 in carcinogenesis. Five isoforms of SH3D19 are expressed due to alternative splicing events.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608674. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Shimomura, Y., Aoki, N., Ito, K. and Ito, M. 2003. Gene expression of Sh3d19, a novel adaptor protein with five Src homology 3 domains, in anagen mouse hair follicles. *J. Dermatol. Sci.* 31: 43-51.
3. Tanaka, M., Nanba, D., Mori, S., Shiba, F., Ishiguro, H., Yoshino, K., Matsuura, N. and Higashiyama, S. 2004. ADAM binding protein Eve-1 is required for ectodomain shedding of epidermal growth factor receptor ligands. *J. Biol. Chem.* 279: 41950-41959.
4. Yam, J.W., Jin, D.Y., So, C.W. and Chan, L.C. 2004. Identification and characterization of EBP, a novel EEN binding protein that inhibits Ras signaling and is recruited into the nucleus by the MLL-EEN fusion protein. *Blood* 103: 1445-1453.
5. Nguyen, T.T., Ma, L.N., Slovak, M.L., Bangs, C.D., Cherry, A.M. and Arber, D.A. 2006. Identification of novel RUNX1 (AML1) translocation partner genes SH3D19, YTHDF2 and ZNF687 in acute myeloid leukemia. *Genes Chromosomes Cancer* 45: 918-932.

## CHROMOSOMAL LOCATION

Genetic locus: SH3D19 (human) mapping to 4q31.3; Sh3d19 (mouse) mapping to 3 F1.

## SOURCE

SH3D19 (397.2) is a mouse monoclonal antibody raised against recombinant SH3D19 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>3</sub> kappa light chain 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.

## APPLICATIONS

SH3D19 (397.2) is recommended for detection of SH3D19 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SH3D19 siRNA (h): sc-88945, SH3D19 siRNA (m): sc-153438, SH3D19 shRNA Plasmid (h): sc-88945-SH, SH3D19 shRNA Plasmid (m): sc-153438-SH, SH3D19 shRNA (h) Lentiviral Particles: sc-88945-V and SH3D19 shRNA (m) Lentiviral Particles: sc-153438-V.

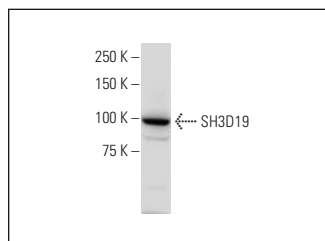
Molecular Weight of SH3D19 isoform 1/2/3/4/5: 87/84/80/47/45kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

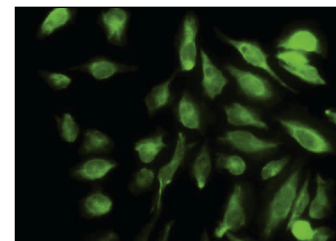
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



SH3D19 (397.2): sc-100852. Western blot analysis of SH3D19 expression in HeLa whole cell lysate.



SH3D19 (397.2): sc-100852. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization.

## 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.