

SH3D19 (G-13): sc-162191

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., et al. 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., et al. 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., et al. 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., et al. 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 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SH3D19 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.

Blocking peptide available for competition studies, sc-162191 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SH3D19 (G-13) 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).

SH3D19 (G-13) is also recommended for detection of SH3D19 in additional species, including equine, canine, bovine and porcine.

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.

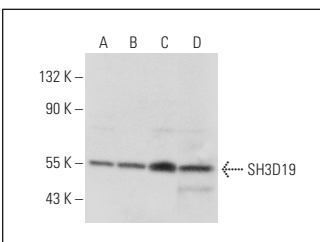
Molecular Weight of SH3D19 isoform 1/2/3/4/5: 87/84/80/47/45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, SK-MEL-24 whole cell lysate: sc-364259 or Y79 cell lysate: sc-2240.

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



SH3D19 (G-13): sc-162191. Western blot analysis of SH3D19 expression in SK-MEL-24 (A), SJRH30 (B), Y79 (C) and Jurkat (D) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.