

FAM84A (H-69): sc-292760

BACKGROUND

FAM84A (family with sequence similarity 84, member A), also known as NSE1 (neurologic sensory protein 1), is a 292 amino acid protein that belongs to the FAM84 family of proteins. Predominantly expressed in testis, FAM84A shares 44% amino acid identity with the related protein FAM84B. FAM84A localizes to a subcellular membrane region where there is no contact between neighboring cells and is believed to play a role in cell morphology and motility. More specifically, the expression of FAM84A increases cell motility. Two FAM84A isoforms are expressed due to alternative splicing events. Isoform 2 can be phosphorylated on various serine residues and this phosphorylation is associated with cellular morphology. FAM84A is upregulated in colorectal cancer, lung cancer, pancreatic cancer, cholangiocarcinoma and bladder cancer tissues. Via its ability to increase cell motility, FAM84A may contribute to the invasion and metastasis of cancer cells.

REFERENCES

1. Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F., Diatchenko, L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611234. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Kobayashi, T., Masaki, T., Sugiyama, M., Atomi, Y., Furukawa, Y. and Nakamura, Y. 2006. A gene encoding a family with sequence similarity 84, member A (FAM84A) enhanced migration of human colon cancer cells. *Int. J. Oncol.* 29: 341-347.
4. Pebernard, S., Perry, J.J., Tainer, J.A. and Boddy, M.N. 2008. Nse1 RING-like domain supports functions of the Smc5-Smc6 holocomplex in genome stability. *Mol. Biol. Cell* 19: 4099-4109.
5. Gouyer, V., Fontaine, D., Dumont, P., de Wever, O., Fontayne-Devaud, H., Leteurtre, E., Truant, S., Delacour, D., Drobecq, H., Kerckaert, J.P., de Launoit, Y., Bracke, M., Gespach, C., Desseyn, J.L. and Huet, G. 2008. Autocrine induction of invasion and metastasis by tumor-associated trypsin inhibitor in human colon cancer cells. *Oncogene* 27: 4024-4033.

CHROMOSOMAL LOCATION

Genetic locus: FAM84A (human) mapping to 2p24.3; Fam84a (mouse) mapping to 12 A1.1.

SOURCE

FAM84A (H-69) is a rabbit polyclonal antibody raised against amino acids 77-145 mapping within an internal region of FAM84A 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.

APPLICATIONS

FAM84A (H-69) is recommended for detection of FAM84A 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).

FAM84A (H-69) is also recommended for detection of FAM84A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FAM84A siRNA (h): sc-75958, FAM84A siRNA (m): sc-75959, FAM84A shRNA Plasmid (h): sc-75958-SH, FAM84A shRNA Plasmid (m): sc-75959-SH, FAM84A shRNA (h) Lentiviral Particles: sc-75958-V and FAM84A shRNA (m) Lentiviral Particles: sc-75959-V.

Molecular Weight of FAM84A: 33 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.