SANTA CRUZ BIOTECHNOLOGY, INC.

SH2D4A (63-J): sc-100288

BACKGROUND

SH2D4A (SH2 domain containing protein 4A), also known as SH2A, is a ubiquitously expressed 454 amino acid docking protein that belongs to the SH2 signaling protein family. Members of this family typically participate in intracellular signaling. Localizing to the cytoplasm, SH2D4A contains one Src homology 2 (SH2) domain. SH2 domains bind to tyrosine-phosphorylated regions of target proteins, frequently linking activated growth factors to putative signal transduction proteins. This suggests that SH2D4A, via its SH2 domain, may play an important function in cellular signal transduction. More specifically, SH2D4A is believed to function as an inhibiting factor in PKC signal transduction. In addition, SH2D4A exhibits abnormal expression in various cancers, implying that it may be involved in tumorigenesis.

REFERENCES

1. Dai, S., Zhao, Y. and Ding, Q. 2002. A novel member of SH2 signaling protein family: cloning and characterization of SH2A gene. Zhonghua Yi Xue Yi Chuan Xue Za Zhi. 19: 458-462.
2. Ding, Q., Zhao, Y.Y., Sun, Z.J. and Yu, D.H. 2003. Effect of SH2A gene in cell signal transduction and its subcellular locolization. Zhonghua Yi Xue Yi Chuan Xue Za Zhi. 20: 499-503.

CHROMOSOMAL LOCATION

Genetic locus: SH2D4A (human) mapping to 8p21.2.

SOURCE

SH2D4A (63-J) is a mouse monoclonal antibody raised against recombinant SH2D4A of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} 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

SH2D4A (63-J) is recommended for detection of SH2D4A of 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).

Suitable for use as control antibody for SH2D4A siRNA (h): sc-77685, SH2D4A shRNA Plasmid (h): sc-77685-SH and SH2D4A shRNA (h) Lentiviral Particles: sc-77685-V.

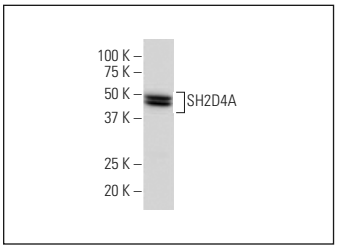
Molecular Weight of SH2D4A: 53 kDa.

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

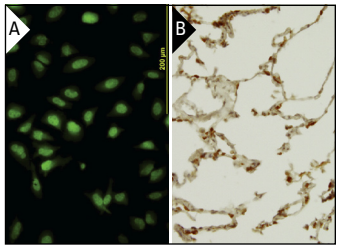
RECOMMENDED SUPPORT REAGENTS

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



SH2D4A (63-J): sc-100288. Western blot analysis of SH2D4A expression in HeLa whole cell lysate.



SH2D4A (63-J): sc-100288. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization (**A**) and Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tissue showing nuclear and cytoplasmic localization (**B**).

RESEARCH USE

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

PROTOCOLS

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