

SH2D4A (P-16): sc-98125

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., et al. 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., et al. 2003. Effect of SH2A gene in cell signal transduction and its subcellular localization. *Zhonghua Yi Xue Yi Chuan Xue Za Zhi* 20: 499-503.
3. Patrakka, J., et al. 2007. Expression and subcellular distribution of novel glomerulus-associated proteins dendrin, ehd3, sh2d4a, plekhh2, and 2310066E14Rik. *J. Am. Soc. Nephrol.* 18: 689-697.
4. Jiang, X., et al. 2008. SH2 domain-based tyrosine phosphorylation array. *Methods Mol. Biol.* 441: 153-161.

CHROMOSOMAL LOCATION

Genetic locus: SH2D4A (human) mapping to 8p21.3; Sh2d4a (mouse) mapping to 8 B3.3.

SOURCE

SH2D4A (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SH2D4A 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-98125 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.

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.

APPLICATIONS

SH2D4A (P-16) is recommended for detection of SH2D4A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SH2D4A (P-16) is also recommended for detection of SH2D4A in additional species, including equine and canine.

Suitable for use as control antibody for SH2D4A siRNA (h): sc-77685, SH2D4A siRNA (m): sc-153429, SH2D4A shRNA Plasmid (h): sc-77685-SH, SH2D4A shRNA Plasmid (m): sc-153429-SH, SH2D4A shRNA (h) Lentiviral Particles: sc-77685-V and SH2D4A shRNA (m) Lentiviral Particles: sc-153429-V.

Molecular Weight of SH2D4A: 53 kDa.

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

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) 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.