SNARK (C-12): sc-374348

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. SNARK (SNF1/AMP kinase-related kinase), also known as NUAK2 (NUAK family, SNF1-like kinase, 2), is a 628 amino acid protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Using magnesium as a cofactor, SNARK catalyzes the ATP-dependent phosphorylation of target proteins and is involved in regulating cell tolerance to stress-induced glucose starvation. Additionally, SNARK is thought to induce cell-cell detachment and may protect cells from Fap-1-mediated apoptosis, possibly playing a role in the motility and invasiveness of tumor cells.

CHROMOSOMAL LOCATION

Genetic locus: NUAK2 (human) mapping to 1q32.1; Nuak2 (mouse) mapping to 1 E4.

SOURCE

SNARK (C-12) is a mouse monoclonal antibody raised against amino acids 501-628 mapping at the C-terminus of SNARK of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SNARK (C-12) is available conjugated to agarose (sc-374348 AC), 500 µg/sodium azide and 0.1% gelatin.

APPLICATIONS

SNARK (C-12) is recommended for detection of SNARK of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 SNARK siRNA (h): sc-88608, SNARK siRNA (m): sc-153652, SNARK shRNA Plasmid (h): sc-88608-SH, SNARK shRNA Plasmid (m): sc-153652-SH, SNARK shRNA (h) Lentiviral Particles: sc-88608-V and SNARK shRNA (m) Lentiviral Particles: sc-153652-V.

Molecular Weight of SNARK: 74 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-673 cell lysate: sc-2414 or SNARK (h): 293T Lysate: sc-129802.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:


DATA

SNARK (C-12): sc-374348. Western blot analysis of SNARK expression in non-transfected: sc-117752 (A) and human SNARK transfected: sc-129802 (B) 293T whole cell lysates.

SNARK (C-12): sc-374348. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells (B).

SELECT PRODUCT CITATIONS


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 for detailed protocols and support products.

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