BACKGROUND

Meaning “second” in Japanese, Niban, also known as FAM129A and cell growth-inhibiting gene 39 protein, is a 928 amino acid cytoplasmic protein that regulates phosphorylation of many proteins that are involved in translation regulation, such as elf2α, 4E-BP1 and p70 S6 kinase. Since it ultimately functions as an activator of proteins, Niban has been implicated as a tumor marker for renal carcinoma, thyroid cancer and head and neck squamous cell carcinoma. Endoplasmic reticular stress induced in Niban knockout mice leads to upregulation of elf2α and decreased phosphorylation of p70 S6 kinase and 4E-BP1. Niban suppression eventually leads to apoptosis, therefore illustrating its involvement in the modulation of cell death signaling by regulating translation.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: FAM129A (human) mapping to 1q25.3.

SOURCE

Niban (F-10) is a mouse monoclonal antibody raised against amino acids 1-240 mapping at the N-terminus of Niban 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.

Niban (F-10) is available conjugated to agarose (sc-374636 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-374636 HRP), 200 µg/ml, for WB, IHC(PE) and ELISA; to either phycoerythrin (sc-374636 PE), fluorescein (sc-374636 FITC), Alexa Fluor® 488 (sc-374636 AF488), Alexa Fluor® 546 (sc-374636 AF546), Alexa Fluor® 594 (sc-374636 AF594) or Alexa Fluor® 647 (sc-374636 AF647), 200 µg/ml, for WB (RGB), IF, IHC(PE) and FCM; and to either Alexa Fluor® 680 (sc-374636 AF680) or Alexa Fluor® 790 (sc-374636 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Niban (F-10) is recommended for detection of Niban of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

Suitable for use as control antibody for Niban siRNA (h): sc-78648, Niban shRNA Plasmid (h): sc-78648-8SH and Niban shRNA (h) Lentiviral Particles: sc-78648-V.

Molecular Weight (predicted) of Niban: 103 kDa.
Molecular Weight (observed) of Niban: 151 kDa.
Positive Controls: A-431 whole cell lysate: sc-2201, AML-193 whole cell lysate: sc-364182 or U266 whole cell lysate: sc-364800.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

STOREAGE

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.