SANTA CRUZ BIOTECHNOLOGY, INC.

# Niban (N-16): sc-161943

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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 phosphoryation of many proteins that are involved in translation regulation, such as eIF2α, 4E-BP1 and p70 S6 kinase α. Since it ultimately functions as as 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 eIF2α and decreased phosphorylation of p70 S6 kinase α and 4E-BP1. Niban suppression eventually leads to apoptosis, therefore illustrating its involvement in the modulation of cell death signaling by regulating translation.

## REFERENCES


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5. Matsumoto, F., Fujii, H., Abe, M., Kajino, K., Kobayashi, T., Matsumoto, T., Ikeda, K. and Hino, O. 2006. A novel tumor marker, Niban, is expressed in subsets of thyroid tumors and Hashimoto's thyroiditis. Hum. Pathol. 37: 1592-1600.
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## CHROMOSOMAL LOCATION

Genetic locus: FAM129A (human) mapping to 1q25.3; Fam129a (mouse) mapping to 1 G2.

## SOURCE

Niban (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Niban of human origin.

## RESEARCH USE

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

## 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-161943 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Niban (N-16) is recommended for detection of Niban 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).

Niban (N-16) is also recommended for detection of Niban in additional species, including canine and bovine.

Suitable for use as control antibody for Niban siRNA (h): sc-78648, Niban siRNA (m): sc-149967, Niban siRNA (r): sc-270300, Niban shRNA Plasmid (h): sc-78648-SH, Niban shRNA Plasmid (m): sc-149967-SH, Niban shRNA Plasmid (r): sc-270300-SH, Niban shRNA (h) Lentiviral Particles: sc-78648-V, Niban shRNA (m) Lentiviral Particles: sc-149967-V and Niban shRNA (r) Lentiviral Particles: sc-270300-V.

Molecular Weight (predicted) of Niban: 103 kDa.

Molecular Weight (observed) of Niban: 151 kDa.

## 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.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

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