

Niban (F-10): sc-374636

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 eIF2 α , 4E-BP1 and p70 S6 kinase α . 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 eIF2 α 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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2. Hino, O. 2004. Multistep renal carcinogenesis in the Eker (Tsc 2 gene mutant) rat model. *Curr. Mol. Med.* 4: 807-811.
3. Adachi, H., et al. 2004. Niban gene is commonly expressed in the renal tumors: a new candidate marker for renal carcinogenesis. *Oncogene* 23: 3495-3500.
4. Kannangai, R., et al. 2005. Hepatic angiomyolipoma and hepatic stellate cells share a similar gene expression profile. *Hum. Pathol.* 36: 341-347.
5. Matsumoto, F., et al. 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.

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 μ g 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 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374636 HRP), 200 μ g/ml, for WB, IHC(P) 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 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374636 AF680) or Alexa Fluor[®] 790 (sc-374636 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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 μ g per 100-500 μ g 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 1:30-1:3000).

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

Molecular Weight (predicted) of Niban: 103 kDa.

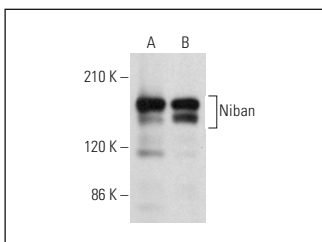
Molecular Weight (observed) of Niban: 151 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, AML-193 whole cell lysate: sc-364182 or U266 whole cell lysate: sc-364800.

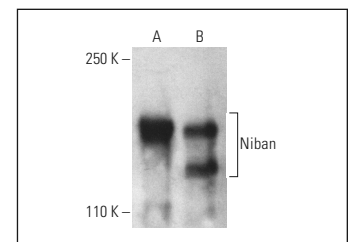
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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 κ BP-FITC: sc-516140 or m-IgG κ 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



Niban (F-10): sc-374636. Western blot analysis of Niban expression in U266 (A) and A-431 (B) whole cell lysates.



Niban (F-10) HRP: sc-374636 HRP. Direct western blot analysis of Niban expression in AML-193 (A) and HL-60 (B) whole cell lysates.

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.

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