SANTA CRUZ BIOTECHNOLOGY, INC.

Nucling (A-5): sc-515005

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Nucling, also known as UACA (uveal autoantigen with coiled-coil domains and ankyrin repeats) and KIAA1561, is a 1,416 amino acid nuclear and cytoplasmic protein. Upregulated after TSH-stimulation, Nucling is a component of the apoptosome complex, whose other components include Apaf-1 and caspase-9. Nucling interacts directly with Apaf-1 and regulates it's redistribution to the nucleus following proapoptotic stress. Nucling also plays a role in the promotion of apoptosis by the galectin-3 down-regulation, apoptosome up-regulation and NFκB inactivation pathways. Nucling also interacts with ARF6, which may modulate cell shape and motility following injury. Nucling contains six ANK repeats and is expressed highly in kidney, heart, pancreas and skeletal muscle. Nucling is a potential target autoantigen in Behcet disease (BD), Vogt-Koyanagi-Harada (VKH) and sarcoidosis, which cause different types of panuevitis.

REFERENCES

1. Yamada, K., et al. 2001. Identification of a novel autoantigen UACA in patients with panuveitis. Biochem. Biophys. Res. Commun. 280: 1169-1176.
2. Ohkura, T., et al. 2004. Detection of the novel autoantibody (anti-UACA antibody) in patients with Graves' disease. Biochem. Biophys. Res. Commun. 321: 432-440.
3. Brandenberger, R., et al. 2004. Transcriptome characterization elucidates signaling networks that control human ES cell growth and differentiation. Nat. Biotechnol. 22: 707-716.
4. Beausoleil, S.A., et al. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc. Natl. Acad. Sci. USA 101: 12130-12135.

CHROMOSOMAL LOCATION

Genetic locus: UACA (human) mapping to 15q23.

SOURCE

Nucling (A-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 123-138 near the N-terminus of Nucling of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Nucling (A-5) is available conjugated to agarose (sc-515005 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515005 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515005 PE), fluorescein (sc-515005 FITC), Alexa Fluor® 488 (sc-515005 AF488), Alexa Fluor® 546 (sc-515005 AF546), Alexa Fluor® 594 (sc-515005 AF594) or Alexa Fluor® 647 (sc-515005 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515005 AF680) or Alexa Fluor® 790 (sc-515005 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515005 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Nucling (A-5) is recommended for detection of Nucling 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), 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 Nucling siRNA (h): sc-90147, Nucling shRNA Plasmid (h): sc-90147-SH and Nucling shRNA (h) Lentiviral Particles: sc-90147-V.

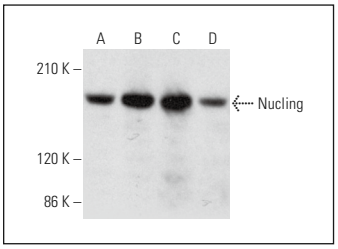
Molecular Weight of Nucling: 160 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MIA PaCa-2 cell lysate: sc-2285 or WI-38 whole cell lysate: sc-364260.

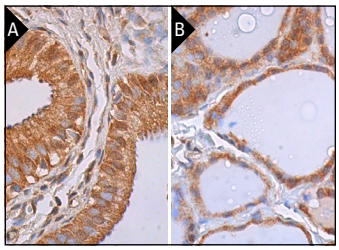
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Nucling (A-5): sc-515005. Western blot analysis of Nucling expression in HeLa (**A**), MIA PaCa-2 (**B**), WI-38 (**C**) and HEK293T (**D**) whole cell lysates.



Nucling (A-5): sc-515005. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue (**A**) and human thyroid gland tissue (**B**) showing nuclear and cytoplasmic staining of glandular cells.

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.