

nucleobindin (4H9): sc-133851

BACKGROUND

Nucleobindin, also designated NUC or CALNUC, is a secreted protein that promotes production of DNA-specific antibodies in lupus-prone MRL/LPR mice. Nucleobindin contains a signal peptide, two EF-hand motifs, acidic and basic regions and a leucine-zipper motif. Nucleobindin has two calcium-binding domains and is the major Golgi Ca²⁺ binding protein. The leucine zipper structure and the basic amino acid-rich region are responsible for DNA binding. Nucleobindin preferentially associates with membranes of polarized cells. Nucleobindin is found in both the cytosol and the membrane and is localized to *cis*-Golgi cisternae and the *cis*-Golgi network (CGN). Nucleobindin is involved in autoimmunity, apoptosis and calcium homeostasis in the bone matrix.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NUCB1 (human) mapping to 19q13.33.

SOURCE

nucleobindin (4H9) is a mouse monoclonal antibody raised against full length recombinant nucleobindin of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

nucleobindin (4H9) is recommended for detection of nucleobindin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for nucleobindin siRNA (h): sc-40778, nucleobindin shRNA Plasmid (h): sc-40778-SH and nucleobindin shRNA (h) Lentiviral Particles: sc-40778-V.

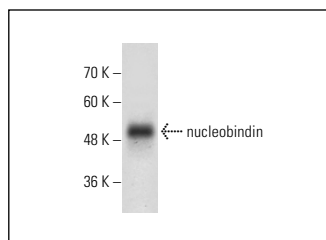
Molecular Weight of nucleobindin: 55 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, MIA PaCa-2 cell lysate: sc-2285 or human fetal liver whole cell lysate.

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).

DATA



nucleobindin (4H9): sc-133851. Western blot analysis of nucleobindin expression in human fetal liver whole cell lysate.

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.