nucleobindin (R-Y2): sc-100793

**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 Ca\(^{2+}\) 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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

nucleobindin (R-Y2) is a mouse monoclonal antibody raised against recombinant nucleobindin of human origin.

**PRODUCT**

Each vial contains 100 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

nucleobindin (R-Y2) 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 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 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, HeLa whole cell lysate: sc-2200 or MIA PaCa-2 cell lysate: sc-2285.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

nucleobindin (R-Y2): sc-100793. Western blot analysis of nucleobindin expression in HeLa (A) and MIA PaCa-2 (B) whole cell lysates.

nucleobindin (R-Y2): sc-100793. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing membrane and cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human spleen tissue showing membrane and cytoplasmic localization (B).

**SELECT PRODUCT CITATIONS**


**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.