

# nucleobindin 2 (M-17): sc-65160

## BACKGROUND

Nucleobindin 2, also designated NUCB2 or NEFA, is a 420 amino acid protein that is predominantly expressed in spleen, testis and stomach. It localizes to the Golgi, the cisternae of the endoplasmic reticulum (ER), and the nuclear envelope of neurons in the brain. nucleobindin 2 contains leucine-zipper and EF-hand motifs, two helix-loop-helix regions, and both a basic and an acidic amino acid region. The leucine zipper structure and the basic amino acid-rich region are responsible for DNA binding. It is a highly charged protein that binds Ca<sup>2+</sup> via its EF-hand domains. Nucleobindin 2 is also expressed in the hypothalamic nuclei in rats, which may indicate a role in appetite control. Conversion of nucleobindin 2 to nesfatin-1 in the brain decreases food intake in rats. Nesfatin-1 is identified as a satiety molecule that is involved in melanocortin signaling in the hypothalamus.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: NUCB2 (human) mapping to 11p15.1; Nucb2 (mouse) mapping to 7 F1.

## SOURCE

nucleobindin 2 (M-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of nucleobindin 2 of mouse origin.

## 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-65160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

nucleobindin 2 (M-17) is recommended for detection of nucleobindin 2 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).

Suitable for use as control antibody for nucleobindin 2 siRNA (h): sc-62705, nucleobindin 2 siRNA (m): sc-62706, nucleobindin 2 shRNA Plasmid (h): sc-62705-SH, nucleobindin 2 shRNA Plasmid (m): sc-62706-SH, nucleobindin 2 shRNA (h) Lentiviral Particles: sc-62705-V and nucleobindin 2 shRNA (m) Lentiviral Particles: sc-62706-V.

Molecular Weight of nucleobindin 2: 50 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or mouse heart extract: sc-2254.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **nucleobindin 2 (D-10): sc-376947**, our highly recommended monoclonal alternative to nucleobindin 2 (M-17).