

NUBP2 (A-11): sc-376785

BACKGROUND

NUBP2 (nucleotide binding protein 2), also known as cytosolic Fe/S cluster assembly factor NUBP2, is a 271 amino acid protein and component of cytosolic iron-sulfur (Fe/S) protein assembly machinery. Localizing to both nucleus and cytoplasm, NUBP2 is found at centrosomes during mitosis and is widely expressed, with highest levels of expression in skeletal muscle and fetal liver, lung, brain and kidney. NUBP2 is essential for extramitochondrial Fe/S protein maturation and is thought to transfer a labile 4Fe-4S cluster to various apoproteins. NUBP2 is a member of the NUBP/MRP gene subfamily of ATP-binding proteins and is encoded by a gene that maps to human chromosome 16p13.3 and mouse chromosome 17 A3.3.

REFERENCES

1. Nakashima, H., et al. 1999. Two novel mouse genes—NUBP2, mapped to the t-complex on chromosome 17, and NUBP1, mapped to chromosome 16—establish a new gene family of nucleotide-binding proteins in eukaryotes. *Genomics* 60: 152-160.
2. Roy, A., et al. 2003. A novel eukaryotic factor for cytosolic Fe-S cluster assembly. *EMBO J.* 22: 4826-4835.
3. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610779. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Stehling, O., et al. 2008. Human Nbp35 is essential for both cytosolic iron-sulfur protein assembly and iron homeostasis. *Mol. Cell. Biol.* 28: 5517-5528.
5. Hosgood, H.D., et al. 2009. PTEN identified as important risk factor of chronic obstructive pulmonary disease. *Respir. Med.* 103: 1866-1870.
6. Kaplan, R.C., et al. 2011. A genome-wide association study identifies novel loci associated with circulating IGF-I and IGFBP-3. *Hum. Mol. Genet.* 20: 1241-1251.

CHROMOSOMAL LOCATION

Genetic locus: NUBP2 (human) mapping to 16p13.3; Nubp2 (mouse) mapping to 17 A3.3.

SOURCE

NUBP2 (A-11) is a mouse monoclonal antibody raised against amino acids 193-271 mapping at the C-terminus of NUBP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

NUBP2 (A-11) is recommended for detection of NUBP2 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NUBP2 siRNA (h): sc-93406, NUBP2 siRNA (m): sc-150091, NUBP2 shRNA Plasmid (h): sc-93406-SH, NUBP2 shRNA Plasmid (m): sc-150091-SH, NUBP2 shRNA (h) Lentiviral Particles: sc-93406-V and NUBP2 shRNA (m) Lentiviral Particles: sc-150091-V.

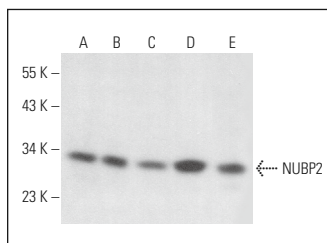
Molecular Weight of NUBP2: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

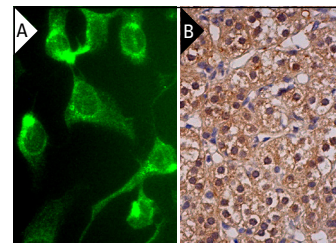
RECOMMENDED SUPPORT REAGENTS

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.

DATA



NUBP2 (A-11): sc-376785. Western blot analysis of NUBP2 expression in Hep G2 (A), HeLa (B), K-562 (C), NIH/3T3 (D) and PC-12 (E) whole cell lysates.



NUBP2 (A-11): sc-376785. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing nuclear and cytoplasmic staining of glandular cells (B).

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.