



NVL (D-13): sc-104490

BACKGROUND

Valosin containing protein (VCP), also designated TERA (for transitional endoplasmic reticulum ATPase), is a member of the AAA family of ATPases, which are involved in a variety of cellular activities. VCP is involved in a variety of membrane functions and in the regulation of the cell cycle. VCP associates with ubiquitinated I κ B- α as well as with the 26S proteasome, indicating a potential role for VCP in the proteasome-mediated degradation of I κ B- α . NVL (nuclear valosin-containing protein-like), also known as NVLp, is an 856 amino acid nuclear protein belonging to the AAA ATPase family. Implicated in ATP-dependent nuclear processes and ribosome synthesis, NVL exists as three alternatively spliced isoforms designated NVL isoform 1 (NVLp.2), NVL isoform 2 (NVLp.1) and NVL isoform 3. Widely expressed, NVL is found at highest levels in pancreas, retina, heart, skeletal muscle and placenta.

REFERENCES

1. Egerton, M., et al. 1992. VCP, the mammalian homolog of Cdc48, is tyrosine phosphorylated in response to T cell antigen receptor activation. *EMBO J.* 11: 3533-3540.
2. Germain-Lee, E.L., et al. 1997. NVL: a new member of the AAA family of ATPases localized to the nucleus. *Genomics* 44: 22-34.
3. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602426. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Zhang, S.H., et al. 1999. Identification of the cell cycle regulator VCP (p97/Cdc48) as a substrate of the band 4.1-related protein-tyrosine phosphatase PTPH1. *J. Biol. Chem.* 274: 17806-17812.
5. Scherl, A., et al. 2002. Functional proteomic analysis of human nucleolus. *Mol. Biol. Cell* 13: 4100-4109.
6. Nagahama, M., et al. 2004. NVL2 is a nucleolar AAA-ATPase that interacts with ribosomal protein L5 through its nucleolar localization sequence. *Mol. Biol. Cell* 15: 5712-5723.

CHROMOSOMAL LOCATION

Genetic locus: NVL (human) mapping to 1q42.11; Nvl (mouse) mapping to 1 H4.

SOURCE

NVL (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NVL of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104490 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NVL (D-13) is recommended for detection of NVL 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 NVL siRNA (h): sc-88550, NVL siRNA (m): sc-106323, NVL shRNA Plasmid (h): sc-88550-SH, NVL shRNA Plasmid (m): sc-106323-SH, NVL shRNA (h) Lentiviral Particles: sc-88550-V and NVL shRNA (m) Lentiviral Particles: sc-106323-V.

Molecular Weight of NVL: 95 kDa.

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.

RESEARCH USE

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

PROTOCOLS

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