

VCP (N-12): sc-21824

BACKGROUND

Valosin containing protein (VCP), also designated TERA (for transitional endoplasmic reticulum ATPase) or p97, is a member of the AAA family of ATPases, which are involved in a variety of cellular activities. VCP is the mammalian homolog of *Saccharomyces cerevisiae* Cdc48, a protein essential for the completion of mitosis in yeast. VCP is thought to be involved in a variety of membrane functions and in the regulation of the cell cycle. It 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 .

REFERENCES

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2. Egerton, M. and Samelson, L.E. 1994. Biochemical characterization of valosin-containing protein, a protein tyrosine kinase substrate in hematopoietic cells. *J. Biol. Chem.* 269: 11435-11441.
3. Druck, T., et al. 1995. Chromosome localization of human genes for Clathrin adaptor polypeptides AP-2 β and AP-50 and the Clathrin-binding protein, VCP. *Genomics* 30: 94-97.
4. Confalonieri, F., et al. 1995. A 200-amino acid ATPase module in search of a basic function. *Bioessays* 17: 639-650.
5. Madeo, F., et al. 1998. Tyrosine phosphorylation regulates cell cycle-dependent nuclear localization of Cdc48p. *Mol. Biol. Cell* 9: 131-141.
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7. 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.

CHROMOSOMAL LOCATION

Genetic locus: VCP (human) mapping to 9p13.3; Vcp (mouse) mapping to 4 A5.

SOURCE

VCP (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of VCP 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-21824 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

VCP (N-12) is recommended for detection of VCP of mouse, rat and 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)], 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).

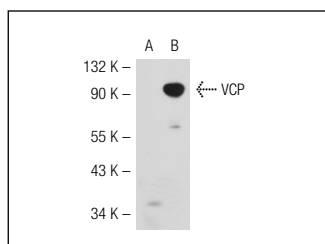
VCP (N-12) is also recommended for detection of VCP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for VCP siRNA (h): sc-37187, VCP siRNA (m): sc-37188, VCP shRNA Plasmid (h): sc-37187-SH, VCP shRNA Plasmid (m): sc-37188-SH, VCP shRNA (h) Lentiviral Particles: sc-37187-V and VCP shRNA (m) Lentiviral Particles: sc-37188-V.

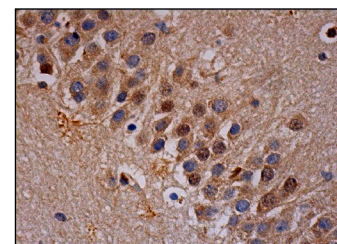
Molecular Weight of VCP: 97 kDa.

Positive Controls: VCP (h): 293T Lysate: sc-112114, A-431 whole cell lysate: sc-2201 or KNRK whole cell lysate: sc-2214.

DATA



VCP (N-12): sc-21824. Western blot analysis of VCP expression in non-transfected: sc-117752 (A) and human VCP transfected: sc-112114 (B) 293T whole cell lysates.



VCP (N-12): sc-21824. Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing cytoplasmic and nuclear staining of neuronal cells and cytoplasmic staining of glial cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures. A 200-amino acid ATPase module in search of a basic function.

PROTOCOLS

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



Try **VCP (D-9): sc-133212** or **VCP (F-5): sc-133211**, our highly recommended monoclonal alternatives to VCP (N-12).