VCP (687-806): sc-4460 WB



The Power to Question

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* C6dc48, a protein essential for the completion of mitiosis in yeast. VCP is thought to be involved in a variety of membrane functions and in the regulation of the cell cycle. VCP associates with ubiquitinated $l\kappa B\text{-}\alpha$ as well as with the 26S proteosome, indicating a potential role for VCP in the proteosome-mediated degradation of $l\kappa B\text{-}\alpha$. The gene which encodes VCP maps to human chromosome 9p13-p12.

REFERENCES

- 1. Egerton, M., Ashe, O.R., Chen, D., Druker, B.J., Burgess, W.H., Samelson, L.E. 1992. VCP, the mammalian homolog of Cdc48, is tyrosine phosphorylated in response to T cell antigen receptor activation. EMBO J. 11: 3533-3540.
- 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., Gu, Y., Prabhala, G., Cannizzaro, L.A., Park, S.H., Huebner, K. and Keen, J.H. 1995. Chromosome localization of human genes for Clathrin adaptor polypeptides AP2 β and AP50 and the Clathrin-binding protein, VCP. Genomics 30: 94-97.
- Confalonieri, F. and Duguet, M. 1995. A 200-amino acid ATPase module in search of a basic function. Bioessays 17: 639-650.
- Madeo, F., Schlauer, J., Zischka, H., Mecke, D., and Frohlich, K.U. 1998.
 Tyrosine phosphorylation regulates cell cycle-dependent nuclear localization of Cdc48p. Mol. Biol. Cell. 9: 131-141.
- 6. Dai, R.M., Chen, E., Longo, D.L., Gorbea, C.M., and Li, C.C. 1998. Involvement of valosin-containing protein, an ATPase co-purified with $l\kappa B-\alpha$ and 26 S proteosome, in ubiquitin-proteosome-mediated degradation of $l\kappa B-\alpha$. J. Biol. Chem. 273: 3562-3573.
- Zhang, S.H., Liu, J., Kobayashi, R., and Tonks, N.K. 1999. Identification of the cell cycle regulator VCP (p97/Cdc48) as a substrate of the band 4.1related protein-tyrosine phosphatase PTPH1. J. Biol. Chem. 274: 17806-17812.
- Ishigaki, S., Hishikawa, N., Niwa, J., Iemura, S., Natsume, T., Hori, S., Kakizuka, A., Tanaka, K., and Sobue, G. 2004. Physical and functional interaction between Dorfin and Valosin-containing protein that are colocalized in ubiquitylated inclusions in neurodegenerative disorders.
 J. Biol. Chem. 279: 51376-51385.

SOURCE

VCP (687-806) is expressed in *E. coli* as a 40 kDa tagged fusion protein corresponding to amino acids 687-806 of VCP (Valosin containing protein) of human origin.

PRODUCT

VCP (687-806) is purified from bacterial lysates (>98%) by column chromatography; supplied as 10 µg protein in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

VCP (687-806) is suitable as a Western blotting control for sc-9783 and sc-20799.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

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

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