SANTA CRUZ BIOTECHNOLOGY, INC.

VHR (24): sc-136118

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mitogen-activated protein (MAP) kinases are a large class of proteins involved in signal transduction pathways that are activated by a range of stimuli and mediate a number of physiological and pathological changes in the cell. Dual specificity phosphatases (DSPs) are a subclass of the protein tyrosine phosphatase (PTP) gene superfamily, which are selective for dephosphorylating critical phosphothreonine and phosphotyrosine residues within MAP kinases. DSP gene expression is induced by a host of growth factors and/or cellular stresses, thereby negatively regulating MAP kinase superfamily members including MAPK/ERK, SAPK/JNK and p38. The members of the dual-specificity phosphatase protein family include MKP-1/CL100 (3CH134), VHR, PAC-1, MKP-2, hVH-3 (B23), hVH-5, MKP-3, MKP-X and MKP-4. Human VHR maps to chromosome 17q21 and encodes a 185 amino acid protein that elicits protein-serine and tyrosine phosphatase activity and is expressed in breast and ovarian tissues.

REFERENCES

1. Keyse, S.M. 1995. An emerging family of dual specificity MAP kinase phosphatases. Biochim. Biophys. Acta 1265: 152-160.
2. Muda, M., et al. 1997. Molecular cloning and functional characterization of a novel mitogen-activated protein kinase phosphatase, MKP-4. J. Biol. Chem. 272: 5141-5151.
3. Sun, H. 1998. Functional studies of dual-specificity phosphatases. Methods Mol. Biol. 84: 307-318.
4. Online Mendelian Inheritance in Man, OMIM™. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 603068. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Camps, M., et al. 2000. Dual specificity phosphatases: a gene family for control of MAP kinase function. FASEB J. 14: 6-16.

CHROMOSOMAL LOCATION

Genetic locus: DUSP3 (human) mapping to 17q21.31; Dusp3 (mouse) mapping to 11 D.

SOURCE

VHR (24) is a mouse monoclonal antibody raised against amino acids 1-185 representing full length VHR of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 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.

PROTOCOLS

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

APPLICATIONS

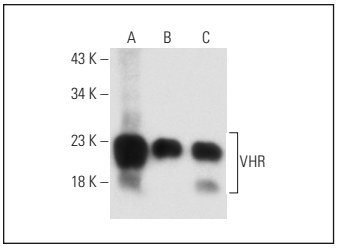
VHR (24) is recommended for detection of VHR of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for VHR siRNA (h): sc-39006, VHR siRNA (m): sc-155105, VHR shRNA Plasmid (h): sc-39006-SH, VHR shRNA Plasmid (m): sc-155105-SH, VHR shRNA (h) Lentiviral Particles: sc-39006-V and VHR shRNA (m) Lentiviral Particles: sc-155105-V.

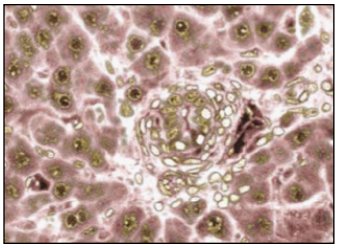
Molecular Weight of VHR: 21 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or A-431 whole cell lysate: sc-2201.

DATA



VHR (24): sc-136118. Western blot analysis of VHR expression in human PBL (**A**), K-562 (**B**) and A-431 (**C**) whole cell lysates.



VHR (24): sc-136118. Immunoperoxidase staining of rabbit liver cells showing nuclear and cytoplasmic localization.

RESEARCH USE

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