

# VHR (N-19): sc-8889

## 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, PAC1, 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.

## CHROMOSOMAL LOCATION

Genetic locus: DUSP3 (human) mapping to 17q21.31.

## SOURCE

VHR (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of VHR of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-8889 P, (100 µg 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

VHR (N-19) is recommended for detection of VHR of human 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

VHR (N-19) is also recommended for detection of VHR in additional species, including canine, bovine and porcine.

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

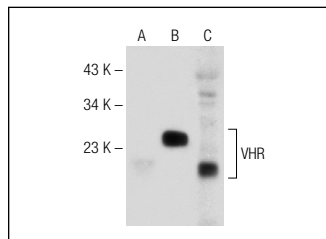
Molecular Weight of VHR: 21 kDa.

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

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



VHR (N-19): sc-8889. Western blot analysis of VHR expression in non-transfected 293T: sc-117752 (A), human VHR transfected 293T: sc-170610 (B) and human PBL (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- González-Fernández, L., et al. 2009. Identification of protein tyrosine phosphatases and dual-specificity phosphatases in mammalian spermatozoa and their role in sperm motility and protein tyrosine phosphorylation. *Biol. Reprod.* 80: 1239-1252.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **VHR (F-2): sc-374161** or **VHR (24): sc-136118**, our highly recommended monoclonal alternatives to VHR (N-19).