

VHL (FL-181): sc-5575

BACKGROUND

Individuals harboring germline mutations in the tumor suppressor gene von Hippel-Lindau (VHL) exhibit an increased susceptibility to a variety of tumors, including renal carcinoma, hemangioblastoma of the central nervous system and pheochromocytoma. The Elongin (SIII) complex has been identified as the functional target of the VHL protein. Elongin (SIII) is a heterotrimer composed of a transcriptional active subunit designated Elongin A, and two regulatory subunits designated Elongin B and Elongin C. VHL functions by binding to the Elongin B and C subunits, inhibiting the transcriptional efficacy of the Elongin (SIII) complex. Different isoforms of VHL have been observed, encoded by alternatively spliced transcript variants. The molecular weight of each isoform varies between species

CHROMOSOMAL LOCATION

Genetic locus: VHL (human) mapping to 3p25.3; Vhl (mouse) mapping to 6 E3.

SOURCE

VHL (FL-181) is a rabbit polyclonal antibody raised against amino acids 1-181 representing full length VHL (von Hippel-Lindau tumor suppressor protein) of mouse origin.

PRODUCT

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

Available as agarose conjugate for immunoprecipitation, sc-5575 AC, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

VHL (FL-181) is recommended for detection of VHL of mouse, rat and 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), 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).

Suitable for use as control antibody for VHL siRNA (h): sc-36816, VHL siRNA (m): sc-36817, VHL shRNA Plasmid (h): sc-36816-SH, VHL shRNA Plasmid (m): sc-36817-SH, VHL shRNA (h) Lentiviral Particles: sc-36816-V and VHL shRNA (m) Lentiviral Particles: sc-36817-V.

Molecular Weight of VHL isoforms: 18/24 kDa.

Positive Controls: F9 cell lysate: sc-2245, mouse brain extract: sc-2253 or 3611-RF nuclear extract: sc-2143.

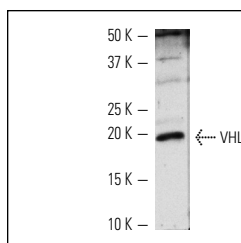
STORAGE

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

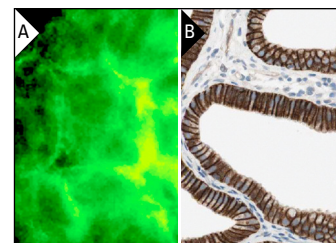
RESEARCH USE

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

DATA



VHL (FL-181): sc-5575. Western blot analysis of VHL expression in F9 whole cell lysate.



VHL (FL-181): sc-5575. Immunofluorescence staining of methanol-fixed F9 cells showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

1. Yuan, H.T., et al. 2003. Peritubular capillary loss after mouse acute nephrotoxicity correlates with down-regulation of vascular endothelial growth factor-A and hypoxia-inducible factor-1 α . *Am. J. Pathol.* 163: 2289-2301.
2. Sun, X., et al. 2003. Regression of solid tumors by engineered overexpression of von Hippel-Lindau tumor suppressor protein and antisense hypoxia-inducible factor-1 α . *Gene Ther.* 10: 2081-2089.
3. Yoo, Y.G., et al. 2008. Hepatitis B virus X protein induces the expression of MTA1 and HDAC1, which enhances hypoxia signaling in hepatocellular carcinoma cells. *Oncogene* 27: 3405-3413.
4. Zhou, J., et al. 2010. Molecularly genetic analysis of von Hippel-Lindau associated central nervous system hemangioblastoma. *Pathol. Int.* 60: 452-458.
5. Morita, T., et al. 2011. Conditional VHL gene deletion activates a local NO-VEGF axis in a balanced manner reinforcing resistance to endothelium-targeted glomerulonephropathy. *Nephrol. Dial. Transplant.* 26: 4023-4031.
6. Liu, W., et al. 2011. Hypoxia and cell cycle regulation of the von Hippel-Lindau tumor suppressor. *Oncogene* 30: 21-31.
7. Lai, Y., et al. 2011. Quantitative proteomics identifies the Myb-binding protein p160 as a novel target of the von Hippel-Lindau tumor suppressor. *PLoS ONE* 6: e16975.

MONOS
Satisfaction
Guaranteed

Try **VHL (VHL40): sc-135657** or **VHL (D-7): sc-55506**, our highly recommended monoclonal alternatives to VHL (FL-181). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **VHL (VHL40): sc-135657**.