

VHL (R-20): sc-1535

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.

REFERENCES

- Garrett, K.P., et al. 1994. Molecular cloning of an essential subunit of RNA polymerase II elongation factor SIII. *Proc. Natl. Acad. Sci. USA* 91: 5237-5241.
- Krumm, A., et al. 1995. Tumor suppression and transcription elongation: the dire consequences of changing partners. *Science* 269: 1400-1401.
- Aso, T., et al. 1995. Elongin (SIII): a multisubunit regulator of elongation by RNA polymerase II. *Science* 269: 1439-1443.

CHROMOSOMAL LOCATION

Genetic locus: VHL (human) mapping to 3p26-p25; Vhlh (mouse) mapping to 6 E3.

SOURCE

VHL (R-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of VHL of rat 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-1535 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VHL (R-20) is recommended for detection of VHL of rat and, to a lesser extent, mouse 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).

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

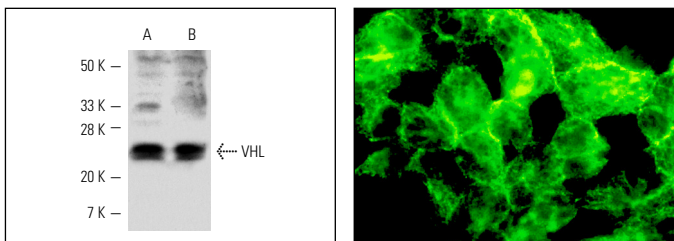
Molecular Weight of VHL isoforms: 18-24 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, mouse brain extract: sc-2253 or mouse testis extract: sc-2405.

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



VHL (R-20): sc-1535. Western blot analysis of VHL expression in 3611-RF (A) and KNRR (B) nuclear extracts. VHL (R-20): sc-1535. Immunofluorescence staining of methanol-fixed F9 cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Schermer, B., et al. 2006. The von Hippel-Lindau tumor suppressor protein controls ciliogenesis by orienting microtubule growth. *J. Cell Biol.* 175: 547-554.
- Khan, Z., et al. 2006. Peroxisomal localization of hypoxia-inducible factors and hypoxia-inducible factor regulatory hydroxylases in primary rat hepatocytes exposed to hypoxia-reoxygenation. *Am. J. Pathol.* 169: 1251-1269.

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.

PROTOCOLS

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



Try **VHL (D-7): sc-55506** or **VHL (G-3): sc-514041**, our highly recommended monoclonal alternatives to VHL (R-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **VHL (D-7): sc-55506**.