

Product datasheet for **TA326834**

Von Hippel Lindau (VHL) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, WB
Recommended Dilution:	WB 1:500 - 1:2000;IF 1:20 - 1:100
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Recombinant protein of human VHL
Formulation:	Store at -20C or -80C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	24 kDa
Gene Name:	von Hippel-Lindau tumor suppressor
Database Link:	NP_000542 Entrez Gene 22346 Mouse Entrez Gene 24874 Rat Entrez Gene 7428 Human P40337



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Background:

The Von Hippel-Lindau (VHL) protein is a substrate recognition component of an E3 ubiquitin ligase complex containing elongin BC (TCEB1 and TCEB2), cullin 1 (CUL1), and RING-box protein 1 (RBX1). VHL protein has been shown to exist as three distinct isoforms resulting from alternatively spliced transcript variants. Loss of VHL protein function results in a dominantly inherited familial cancer syndrome that manifests as angiomas of the retina, hemangioblastomas of the central nervous system, renal clear-cell carcinomas and pheochromocytomas. Under normoxic conditions, VHL directs the ubiquitylation and subsequent proteosomal degradation of the hypoxia inducible factor HIF alpha, maintaining very low levels of HIF alpha in the cell. Cellular exposure to hypoxic conditions, or loss of VHL protein function, results in increased HIF alpha protein levels and increased expression of HIF-induced gene products, many of which are angiogenesis factors such as vascular endothelial growth factor (VEGF). Thus, loss of VHL protein function is believed to contribute to the formation of highly vascular neoplasias. In addition to HIF alpha, VHL is known to regulate the ubiquitylation of several other proteins, including tat-binding protein 1 (TBP-1), the atypical protein kinase C lambda (aPKC), and two subunits of the multiprotein RNA Polymerase II complex (RPB1 and RPB7). Interactions with elongin BC, RPB1, RPB7 and the pVHL-associated KRAB-A domain containing protein (VHL_AK) suggest that VHL may also play a more direct role in transcriptional repression.

Synonyms:

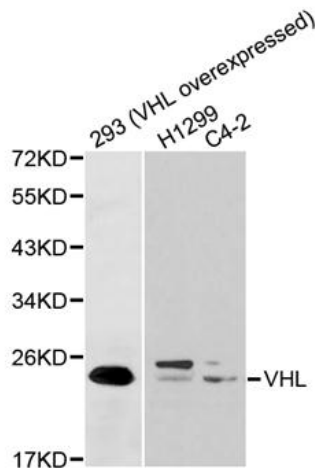
HRCA1; pVHL; RCA1; VHL1

Protein Families:

Druggable Genome, Transcription Factors

Protein Pathways:

Pathways in cancer, Renal cell carcinoma, Ubiquitin mediated proteolysis

Product images:

Western blot analysis of extracts of various cell lines, using VHL antibody.