Product Datasheet

VHL Antibody

Catalog No: #32075

Package Size: #32075-1 50ul #32075-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	VHL Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were purified by affinity purification using immunogen.
Applications	WB IHC IF
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total VHL protein.
Immunogen Type	Recombinant Protein
Immunogen Description	Recombinant protein of human VHL .
Target Name	VHL
Other Names	VonHippel-Lindaudiseasetumorsuppressor; pVHL; ProteinG7; VHL;
Accession No.	Swiss-Prot:P40337NCBI Gene ID:7428
SDS-PAGE MW	24KD
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

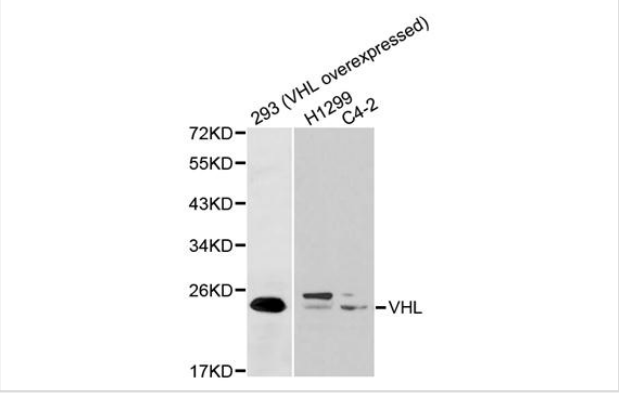
Application Details

Western blotting: 1:500 - 1:2000

Immunohistochemistry: 1:50 - 1:100

Immunofluorescence: 1:20 - 1:100

Images



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

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) (1,2,3). VHL protein has been shown to exist as three distinct isoforms resulting from alternatively spliced transcript variants (4). 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 (4). 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 (4). 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) (5,6,7,8). Interactions with elongin BC, RPB1, RPB7 and the pVHL-associated KRAB-A domain containing protein (VHLaK) suggest that VHL may also play a more direct role in transcriptional repression.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.