

**VHL Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP6549a****Specification**

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**VHL Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [P40337](#)**VHL Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 7428**Other Names**

Von Hippel-Lindau disease tumor suppressor, Protein G7, pVHL, VHL

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP6549a](/products/AP6549a) was selected from the N-term region of human VHL. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**VHL Antibody (N-term) Blocking Peptide - Protein Information****Name** VHL**Function**

Involved in the ubiquitination and subsequent proteasomal degradation via the von Hippel-Lindau ubiquitination complex (PubMed: [10944113](http://www.uniprot.org/citations/10944113), PubMed: [17981124](http://www.uniprot.org/citations/17981124), PubMed: [19584355](http://www.uniprot.org/citations/19584355)). Seems to act as a target recruitment subunit in the E3 ubiquitin ligase complex and recruits hydroxylated hypoxia-inducible factor (HIF) under normoxic conditions (PubMed: [10944113](http://www.uniprot.org/citations/10944113), PubMed: [17981124](http://www.uniprot.org/citations/17981124)). Involved in transcriptional repression through interaction with HIF1A, HIF1AN and histone deacetylases (PubMed: [10944113](http://www.uniprot.org/citations/10944113), PubMed: [17981124](http://www.uniprot.org/citations/17981124)). Ubiquitinates, in an oxygen-responsive manner, ADRB2

(PubMed:<a href="http://www.uniprot.org/citations/19584355" target="\_blank">19584355</a>).  
Acts as a negative regulator of mTORC1 by promoting ubiquitination and degradation of RPTOR  
(PubMed:<a href="http://www.uniprot.org/citations/34290272" target="\_blank">34290272</a>).

#### **Cellular Location**

[Isoform 1]: Cytoplasm. Cell membrane; Peripheral membrane protein. Endoplasmic reticulum. Nucleus. Note=Found predominantly in the cytoplasm and with less amounts nuclear or membrane-associated (PubMed:9751722) Colocalizes with ADRB2 at the cell membrane (PubMed:19584355)

#### **Tissue Location**

Expressed in the adult and fetal brain and kidney.

### **VHL Antibody (N-term) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **VHL Antibody (N-term) Blocking Peptide - Images**

### **VHL Antibody (N-term) Blocking Peptide - Background**

Von Hippel-Lindau syndrome (VHL) is a dominantly inherited familial cancer syndrome predisposing to a variety of malignant and benign tumors. A germline mutation of VHL gene is the basis of familial inheritance of VHL syndrome. The protein is a component of the protein complex that includes elongin B, elongin C, and cullin-2, and possesses ubiquitin ligase E3 activity. This protein is involved in the ubiquitination and degradation of hypoxia-inducible-factor (HIF), which is a transcription factor that plays a central role in the regulation of gene expression by oxygen. RNA polymerase II subunit POLR2G/RPB7 is also reported to be a target of this protein.

### **VHL Antibody (N-term) Blocking Peptide - References**

Olmos,G., Cell. Mol. Life Sci. 66 (13), 2167-2180 (2009)Hatzimichael,E., Clin Lymphoma Myeloma 9 (3), 239-242 (2009)Luu,V.D., Clin. Cancer Res. 15 (10), 3297-3304 (2009)