VHL (Phospho Ser68) Rabbit pAb

CatalogNo: YP1113

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- IHC,IF,ELISA

MW
- 19-24kD (Observed)

Isotype
- IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

IHC 1:100-1:300
ELISA 1:5000
IF 1:50-200

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human VHL around the phosphorylation site of Ser68. AA range:34-83
Specificity	Phospho-VHL (S68) Polyclonal Antibody detects endogenous levels of VHL protein only when phosphorylated at S68.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):VNsRE

Target Information

Gene name VHL

Protein Name Von Hippel-Lindau disease tumor suppressor

Organism	Gene ID	UniProt ID
Human	7428;	P40337;
Mouse	22346;	P40338;
Rat	24874;	Q64259;

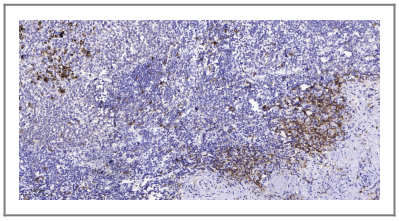
Cellular Localization [Isoform 1]: Cytoplasm. Membrane; Peripheral membrane protein. Nucleus. Found predominantly in the cytoplasm and with less amounts nuclear or membrane-associated. Colocalizes with ADRB2 at the cell membrane.; [Isoform 3]: Cytoplasm. Nucleus. Equally distributed between the nucleus and the cytoplasm but not membrane-associated.

Tissue specificity Expressed in the adult and fetal brain and kidney.

Function

Disease:Defects in VHL are a cause of pheochromocytoma [MIM:171300]. The pheochromocytomas are catecholamine-producing , chromaffin tumors that arise in the adrenal medulla in 90% of cases. In the remaining 10% of cases , they develop in extra-adrenal sympathetic ganglia and may be referred to as "paraganglioma." Pheochromocytoma usually presents with hypertension. Approximately 10% of pheochromocytoma is hereditary. The genetic basis for most cases of non-syndromic familial pheochromocytoma is unknown. ,Disease:Defects in VHL are a cause of renal cell carcinoma type 1 (RCC1) [MIM:144700]; also called hypernephroma or adenocarcinoma of kidney. Familial renal cell carcinoma syndromes form a group of diseases characterized by a predisposition to development of renal cell carcinomas (RCCs) with various histological subtypes. ,Disease:Defects in VHL are the cause of erythrocytosis familial type 2 (ECYT2) [MIM:263400]; also called VHL-dependent polycythemia or Chuvash type polycythemia. ECYT2 is an autosomal recessive disorder characterized by an increase in serum red blood cell mass , hypersensitivity of erythroid progenitors to erythropoietin , increased erythropoietin serum levels , and normal oxygen affinity. Patients with ECYT2 carry a high risk for peripheral thrombosis and cerebrovascular events. ,Disease:Defects in VHL are the cause of von Hippel-Lindau disease (VHLD) [MIM:193300]. VHLD is a dominantly inherited familial cancer syndrome characterized by the development of retinal angiomatosis , cerebellar and spinal hemangioblastoma , renal cell carcinoma (RCC) , phaeochromocytoma and pancreatic tumors. VHL type 1 is without pheochromocytoma , type 2 is with pheochromocytoma. VHL type 2 is further subdivided into types 2A (pheochromocytoma , retinal angioma , and hemangioblastomas without renal cell carcinoma and pancreatic cyst) and 2B (pheochromocytoma , retinal angioma , and hemangioblastomas with renal cell carcinoma and pancreatic cyst) . VHL type 2C refers to patients with isolated pheochromocytoma without hemangioblastoma or renal cell carcinoma. The estimated incidence is 3/100000 births per year and penetrance is 97% by age 60 years. ,Domain:The elongin BC complex binding domain is also known as BC-box with the consensus [APST]-L-x (3) -C-x (3) -[AILV]. ,Function:Involved in the ubiquitination and subsequent proteasomal degradation via the von Hippel-Lindau ubiquitination complex. Seems to act as target recruitment subunit in the E3 ubiquitin ligase complex and recruits hydroxylated hypoxia-inducible factor (HIF) under normoxic conditions. Involved in transcriptional repression through interaction with HIF1A , HIF1AN and histone deacetylases. ,pathway:Protein modification; protein ubiquitination. ,subcellular location:Equally distributed between the nucleus and the cytoplasm but not membrane-associated. ,subcellular location:Found predominantly in the cytoplasm and with less amounts nuclear or membrane-associated. ,subunit:Component of the VCB (VHL-Elongin BC-CUL2) complex; this complex acts as a ubiquitin-ligase E3 and directs proteosome-dependent degradation of targeted proteins. Interacts with CUL2; this interaction is dependent on the integrity of the trimeric VBC complex. Interacts (via the beta domain) with HIF1A (via the NTAD domain) ; this interaction mediates degradation of HIF1A in normoxia and , in hypoxia , prevents ubiqitination and degradation of HIF1A by mediating hypoxia-induced translocation to the nucleus , a process which requires a hypoxia-dependent regulatory signal. Interacts with RNF139 and UBP33. Interacts with PHF17. ,tissue specificity:Expressed in the adult and fetal brain and kidney. ,

Validation Data



Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200 (4℃ overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 45min).

Contact information

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