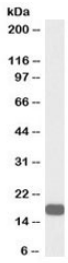
VHL Antibody Biotin Conjugate (R35773BTN)

Catalog No.	Formulation	Size
R35773BTN	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Predicted Reactivity	Dog
Format	Biotin Conjugate
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	7428
Applications	Western Blot : 0.3-1ug/ml Enzyme ImmunoAssay : suitable ELISA (peptide) LOD : 1:128000
Limitations	This VHL antibody is available for research use only.



VHL Antibody Biotin Conjugate Human Ovary WB. Western blot analysis of human ovary lysate using biotinylated VHL antibody demonstrates detection of an immunoreactive band at approximately 19 kDa, consistent with the expected molecular weight of the shorter Von Hippel-Lindau protein (VHL) isoform. VHL is a tumor suppressor protein that regulates hypoxia-inducible factor (HIF) signaling and serves as a central component of cellular oxygen-sensing pathways. Through its role in an E3 ubiquitin ligase complex, VHL helps control cellular responses to oxygen availability, angiogenesis, and metabolic adaptation. The observed band supports the utility of this biotin-conjugated antibody for studies of hypoxia signaling, tumor suppression, and oxygen homeostasis pathways. Western blot was performed using 0.3 ug/ml primary antibody. Predicted molecular weights: ~23 kDa (isoform 1) and ~19 kDa (isoform 2).

Description

VHL Antibody Biotin Conjugate is designed for the detection and study of VHL (Von Hippel-Lindau protein), a highly

conserved regulator of cellular oxygen-sensing pathways and hypoxia-responsive signaling networks. VHL functions as a component of an E3 ubiquitin ligase complex that controls the stability of hypoxia-inducible factor (HIF) proteins, thereby helping coordinate cellular responses to oxygen availability. Through this activity, VHL serves as a central mediator of hypoxia signaling, angiogenesis, metabolic adaptation, and maintenance of cellular homeostasis.

VHL plays an essential role in regulating pathways that influence cellular growth, survival, differentiation, and adaptation to environmental stress. Under normal oxygen conditions, VHL promotes degradation of HIF proteins and prevents inappropriate activation of hypoxia-responsive genes. Reduced oxygen availability allows HIF accumulation and activation of transcriptional programs involved in vascular development, energy metabolism, and cellular adaptation. This tightly controlled process is critical for maintaining physiologic oxygen balance within tissues.

As one of the best-characterized tumor suppressor proteins, VHL has been extensively studied in cancer biology, vascular biology, developmental biology, and hypoxia research. In addition to regulating HIF-dependent pathways, VHL participates in broader cellular processes including protein turnover, extracellular matrix regulation, and maintenance of normal tissue architecture. These diverse functions have established VHL as an important research target for understanding how cells sense and respond to changing environmental conditions.

VHL Antibody Biotin Conjugate is useful for evaluating VHL expression and investigating molecular pathways involved in hypoxia signaling, oxygen sensing, angiogenesis, metabolism, and cellular homeostasis. The biotin conjugate format enables sensitive detection strategies in a variety of research applications utilizing biotin-streptavidin-based visualization and assay systems.

For additional information on VHL function, hypoxia signaling pathways, and oxygen-sensing mechanisms, visit our VHL Antibody / Tumor Suppressor Protein Antibody page.

Application Notes

Optimal dilution of the VHL antibody should be determined by the researcher.

1. Isoforms 1 (213 AA) and 2 (172 AA) may be detected with this Ab.

Immunogen

Amino acids RSLVKPENYRRLD were used as the immunogen for this VHL antibody.

Storage

Aliquot and store the VHL antibody at -20oC.

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