

#14966 Store at -20C

**VPRBP (D5K5V) Rabbit mAb****Cell Signaling**  
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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	170	Rabbit IgG	#Q9Y4B6	9730

**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

VPRBP (D5K5V) Rabbit mAb recognizes endogenous levels of total VPRBP protein.

**Species predicted to react based on 100% sequence homology:**

Hamster, Pig

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Phe1184 of human VPRBP protein.

**Background**

The HIV-1 viral protein R (Vpr)-binding protein (VPRBP, DCAF1) is a substrate-specific adaptor for the CUL4-based ubiquitin ligase complex that consists of CUL4A, RBX1, and DDB1 (1). VPRBP protein structure contains a central LIS1 homology (LisH) motif responsible for dimerization, and two carboxy-terminal WD-40 motifs involved in Vpr and DDB1 binding (2-4). Research studies demonstrate that VPRBP plays a role in hepatic lipid metabolism by promoting the ubiquitin-dependent proteasomal degradation of the TR4 nuclear receptor, which is involved in lipid homeostasis (5). The VPRBP protein plays a role in mammalian germ cell development through regulation of TET methylcytosine dioxygenase activation (6). Additional studies show that VPRBP exhibits kinase activity and phosphorylates histone H2A at Ser120, which blocks tumor suppressor gene transcription (7). The tumor suppressor Merlin/NF2 inhibits tumorigenesis through interaction with and suppression of the CUL4A-RBX1-DDB1-VPRBP complex (8).

**Background References**

1. Lee, J. and Zhou, P. (2007) *Mol Cell* 26, 775-80.
2. Le Rouzic, E. et al. (2007) *Cell Cycle* 6, 182-8.
3. Zhang, S. et al. (2001) *Gene* 263, 131-40.
4. Le Rouzic, E. et al. (2008) *J Biol Chem* 283, 21686-92.
5. Yoshizawa, T. et al. (2014) *Cell Metab* 19, 712-21.
6. Yu, C. et al. (2013) *Science* 342, 1518-21.
7. Kim, K. et al. (2013) *Mol Cell* 52, 459-67.
8. Li, W. et al. (2010) *Cell* 140, 477-90.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key****WB:** Western Blotting**Cross-Reactivity Key**

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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