

### ZC3HAV1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP5695B

### Specification

## ZC3HAV1 Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	<u>Q7Z2W4</u>
Other Accession	<u>NP_064504.2</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	101431
Antigen Region	604-632

### ZC3HAV1 Antibody (C-term) - Additional Information

### Gene ID 56829

### **Other Names**

Zinc finger CCCH-type antiviral protein 1, ADP-ribosyltransferase diphtheria toxin-like 13, ARTD13, Zinc finger CCCH domain-containing protein 2, Zinc finger antiviral protein, ZAP, ZC3HAV1, ZC3HDC2

#### Target/Specificity

This ZC3HAV1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 604-632 amino acids from the C-terminal region of human ZC3HAV1.

**Dilution** WB~~1:1000 IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### Precautions

ZC3HAV1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# ZC3HAV1 Antibody (C-term) - Protein Information

Name ZC3HAV1 (<u>HGNC:23721</u>)



# Synonyms ZC3HDC2

**Function** Antiviral protein which inhibits the replication of viruses by recruiting the cellular RNA degradation machineries to degrade the viral mRNAs. Binds to a ZAP-responsive element (ZRE) present in the target viral mRNA, recruits cellular poly(A)-specific ribonuclease PARN to remove the poly(A) tail, and the 3'-5' exoribonuclease complex exosome to degrade the RNA body from the 3'-end. It also recruits the decapping complex DCP1-DCP2 through RNA helicase p72 (DDX17) to remove the cap structure of the viral mRNA to initiate its degradation from the 5'-end. Its target viruses belong to families which include retroviridae: human immunodeficiency virus type 1 (HIV-1), moloney and murine leukemia virus (MoMLV) and xenotropic MuLV-related virus (XMRV), filoviridae: ebola virus (EBOV) and marburg virus (MARV), togaviridae: sindbis virus (SINV) and Ross river virus (RRV). Specifically targets the multiply spliced but not unspliced or singly spliced HIV-1 mRNAs for degradation. Isoform 1 is a more potent viral inhibitor than isoform 2. Isoform 2 acts as a positive regulator of RIGI signaling resulting in activation of the downstream effector IRF3 leading to the expression of type I IFNs and IFN stimulated genes (ISGs).

### **Cellular Location**

[Isoform 1]: Cytoplasm {ECO:0000250|UniProtKB:Q8K3Y6}. Nucleus {ECO:0000250|UniProtKB:Q8K3Y6} Note=Localizes in the cytoplasm at steady state, but shuttles between nucleus and cytoplasm in a XPO1-dependent manner {ECO:0000250|UniProtKB:Q8K3Y6}

# ZC3HAV1 Antibody (C-term) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

NCI-H460 250 130 95 ' 72 55

ZC3HAV1 Antibody (C-term) (Cat. #AP5695b) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the ZC3HAV1 antibody detected the ZC3HAV1 protein (arrow).

ZC3HAV1 Antibody (C-term) - Images





ZC3HAV1 Antibody (C-term) (Cat. #AP5695b) immunohistochemistry analysis in formalin fixed and paraffin embedded human cervix carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ZC3HAV1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

# ZC3HAV1 Antibody (C-term) - Background

ZC3HAV1 is a CCCH-type zinc finger protein that is thought to prevent infection by retroviruses. Studies of the rat homolog indicate that the protein may primarily function to inhibit viral gene expression and induce an innate immunity to viral infection.

### ZC3HAV1 Antibody (C-term) - References

Beausoleil, S.A., et al. Proc. Natl. Acad. Sci. U.S.A. 101(33):12130-12135(2004) Bick, M.J., et al. J. Virol. 77(21):11555-11562(2003) Katoh, M., et al. Int. J. Oncol. 23(2):541-547(2003) Gao, G., et al. Science 297(5587):1703-1706(2002)