

**DCPS Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP17101c****Specification**

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**DCPS Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q96C86</a>
Other Accession	<a href="#">Q8K4F7</a> , <a href="#">Q8MIZ3</a> , <a href="#">Q9DAR7</a> , <a href="#">Q8MJJ7</a> , <a href="#">NP_054745.1</a>
Reactivity	Human
Predicted	Bovine, Mouse, Pig, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	38609
Antigen Region	165-193

**DCPS Antibody (Center) - Additional Information****Gene ID** 28960**Other Names**

m7GpppX diphosphatase, DCS-1, Decapping scavenger enzyme, Hint-related 7meGMP-directed hydrolase, Histidine triad nucleotide-binding protein 5, Histidine triad protein member 5, HINT-5, Scavenger mRNA-decapping enzyme DcpS, DCPS, DCS1, HINT5

**Target/Specificity**

This DCPS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 165-193 amino acids from the Central region of human DCPS.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**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**

DCPS Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**DCPS Antibody (Center) - Protein Information**

**Name** DCPS**Synonyms** DCS1, HINT5

**Function** Decapping scavenger enzyme that catalyzes the cleavage of a residual cap structure following the degradation of mRNAs by the 3'->5' exonuclease-mediated mRNA decay pathway. Hydrolyzes cap analog structures like 7-methylguanosine nucleoside triphosphate (m7GpppG) with up to 10 nucleotide substrates (small capped oligoribonucleotides) and specifically releases 5'-phosphorylated RNA fragments and 7- methylguanosine monophosphate (m7GMP). Cleaves cap analog structures like tri-methyl guanosine nucleoside triphosphate (m3(2,2,7)GpppG) with very poor efficiency. Does not hydrolyze unmethylated cap analog (GpppG) and shows no decapping activity on intact m7GpppG-capped mRNA molecules longer than 25 nucleotides. Does not hydrolyze 7- methylguanosine diphosphate (m7GDP) to m7GMP (PubMed:[22985415](#)). May also play a role in the 5'->3' mRNA decay pathway; m7GDP, the downstream product released by the 5'->3' mRNA mediated decapping activity, may be also converted by DCPS to m7GMP (PubMed:[14523240](#)). Binds to m7GpppG and strongly to m7GDP. Plays a role in first intron splicing of pre-mRNAs. Inhibits activation-induced cell death.

**Cellular Location**

Cytoplasm. Nucleus. Note=Predominantly localized in the nucleus. Nucleocytoplasmic shuttling protein that can transiently enter the cytoplasm in mammalian cells in a XPO1/CRM1- dependent manner

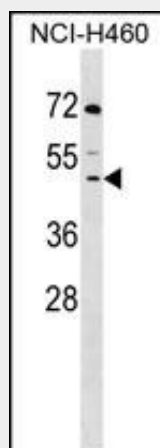
**Tissue Location**

Detected in liver, brain, kidney, testis and prostate.

**DCPS Antibody (Center) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**DCPS Antibody (Center) - Images**

DCPS Antibody (Center) (Cat. #AP17101c) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the DCPS antibody detected the DCPS protein (arrow).

#### **DCPS Antibody (Center) - Background**

Necessary for the complete degradation of mRNAs, both in normal mRNA turnover and in nonsense-mediated mRNA decay. Removes the 7-methyl guanine cap structure from mRNA fragments shorter than 10 nucleotides that are produced by 3'→5' exonuclease-mediated mRNA decay. Releases m7GMP. Can also degrade m7GDP to m7GMP. Has no activity towards mRNA molecules longer than 25 nucleotides.

#### **DCPS Antibody (Center) - References**

Sebastiani, P., et al. Science (2010) In press :  
Mariller, C., et al. Biochimie 91(1):109-122(2009)  
Liu, S.W., et al. J. Biol. Chem. 283(24):16427-16436(2008)  
Shen, V., et al. RNA 14(6):1132-1142(2008)  
Lamesch, P., et al. Genomics 89(3):307-315(2007)