

**DCPS Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP55034**

**Specification**

**DCPS Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	<a href="#">Q96C86</a>
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DCPS
Epitope Specificity	101-200/337
Isotype	IgG
<b>Purity</b>	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus.
SIMILARITY	Belongs to the HIT family.
SUBUNIT	Homodimer. Associates with components of the exosome multienzyme ribonuclease complex, such as EXOSC3 and EXOSC4. Interacts with NDOR1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions**

Eukaryotic cells primarily utilize exoribonucleases and decapping enzymes to degrade their mRNA. DcpS is a scavenger pyrophosphatase that hydrolyzes the residual cap structure following 3' to 5' decay of an mRNA. Following mRNA degradation DcpS releases N-7 methyl guanosine monophosphate and 5'-diphosphate terminated cap or mRNA products. The central histidine within the DcpS HIT motif is critical for decapping activity and defines the HIT motif as a new mRNA decapping domain, making DcpS the first member of the HIT family of proteins with a defined biological function. HIT proteins are homodimeric and contain two conserved 100-amino-acid HIT fold domains with independent active sites that are each sufficient to bind and hydrolyze cognate substrates.

**DCPS Polyclonal Antibody - Additional Information**

Gene ID 28960

**Other Names**

m7GpppX diphosphatase, 3.6.1.59, 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

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

#### Dilution

<span class ="dilution\_WB">WB~~1:1000</span><br ><span class ="dilution\_IHC-P">IHC-P~~N/A</span><br ><span class ="dilution\_IHC-F">IHC-F~~N/A</span><br ><span class ="dilution\_IF">IF~~1:50~200</span><br ><span class ="dilution\_ICC">ICC~~N/A</span><br ><span class ="dilution\_E">E~~N/A</span>

#### Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

### DCPS Polyclonal Antibody - 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' exosome-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:<a href="http://www.uniprot.org/citations/22985415" target="\_blank">22985415</a>). 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:<a href="http://www.uniprot.org/citations/14523240" target="\_blank">14523240</a>). 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

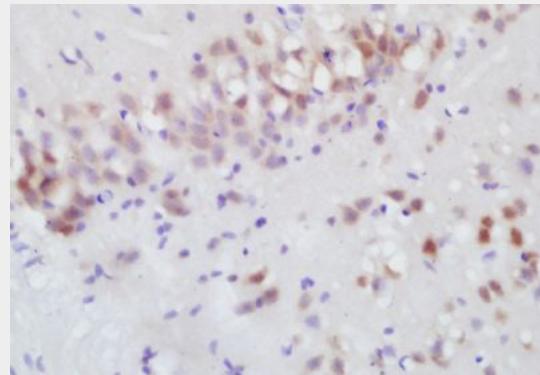
Detected in liver, brain, kidney, testis and prostate.

### DCPS Polyclonal Antibody - 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 Polyclonal Antibody - Images**

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-DCPS Polyclonal Antibody, Unconjugated(bs-12987R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining