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# 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 | Q96C86 |
| 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** |
| **Purity** | |
| 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**
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

**Format**
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

**Storage**
Store at -20 ℃ 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 ℃.

## 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.

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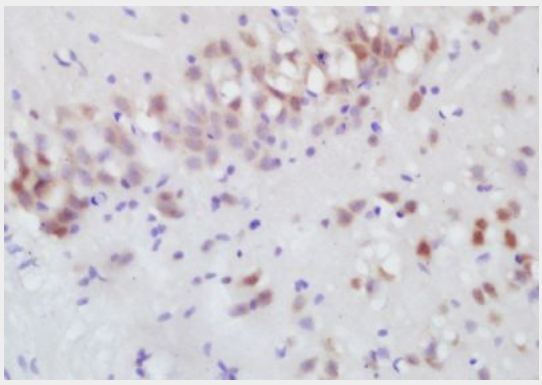
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

**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℃ 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