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DCPS Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17101c

Specification

DCPS Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q96C86
Other Accession	Q8K4F7, Q8MIZ3, Q9DAR7, Q8MJJ7, NP_054745.1
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

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

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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: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

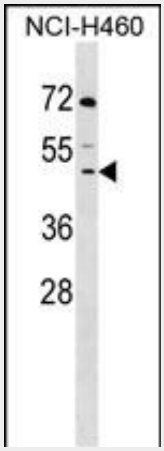
Tissue Location
Detected in liver, brain, kidney, testis and prostate.

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 Cytomety
- Cell Culture

DCPS Antibody (Center) - Images



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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' exosome-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 :
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Liu, S.W., et al. J. Biol. Chem. 283(24):16427-16436(2008)
Shen, V., et al. RNA 14(6):1132-1142(2008)
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