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DCP2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9182c

Specification

DCP2 Antibody (Center) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	Q8IU60
Other Accession	Q9CYC6
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**48423**
Antigen Region	**144-173**

DCP2 Antibody (Center) - Additional Information

Gene ID 167227

Other Names
m7GpppN-mRNA hydrolase, Nucleoside diphosphate-linked moiety X motif 20, Nudix motif 20, mRNA-decapping enzyme 2, hDpc, DCP2, NUDT20

Target/Specificity
This DCP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 144-173 amino acids from the Central region of human DCP2.

Dilution
FC~~1:10~50
IHC-P~~1:50~100
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
DCP2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

DCP2 Antibody (Center) - Protein Information

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Name DCP2

Synonyms NUDT20

Function Decapping metalloenzyme that catalyzes the cleavage of the cap structure on mRNAs (PubMed:12218187, PubMed:12417715, PubMed:12923261, PubMed:21070968, PubMed:28002401, PubMed:31875550). Removes the 7-methyl guanine cap structure from mRNA molecules, yielding a 5'-phosphorylated mRNA fragment and 7m-GDP (PubMed:12486012, PubMed:12923261, PubMed:21070968, PubMed:28002401, PubMed:31875550). Necessary for the degradation of mRNAs, both in normal mRNA turnover and in nonsense-mediated mRNA decay (PubMed:14527413). Plays a role in replication-dependent histone mRNA degradation (PubMed:18172165). Has higher activity towards mRNAs that lack a poly(A) tail (PubMed:21070968). Has no activity towards a cap structure lacking an RNA moiety (PubMed:21070968). The presence of a N(6)-methyladenosine methylation at the second transcribed position of mRNAs (N(6),2'-O- dimethyladenosine cap; m6A(m)) provides resistance to DCP2-mediated decapping (PubMed:28002401). Blocks autophagy in nutrient-rich conditions by repressing the expression of ATG-related genes through degradation of their transcripts (PubMed:26098573).

Cellular Location
Cytoplasm, P-body. Nucleus Note=Predominantly cytoplasmic, in processing bodies (PB) (PubMed:15273322). A minor amount is nuclear (PubMed:15273322)

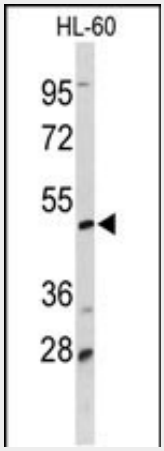
Tissue Location
Expressed in brain and testis. Not detected in heart (at protein level).

DCP2 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

DCP2 Antibody (Center) - Images



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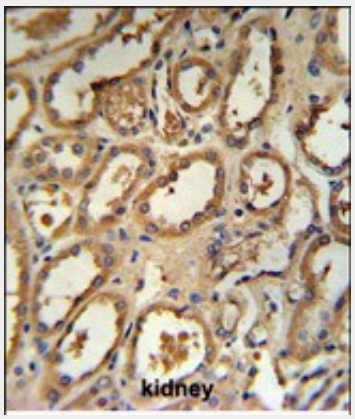
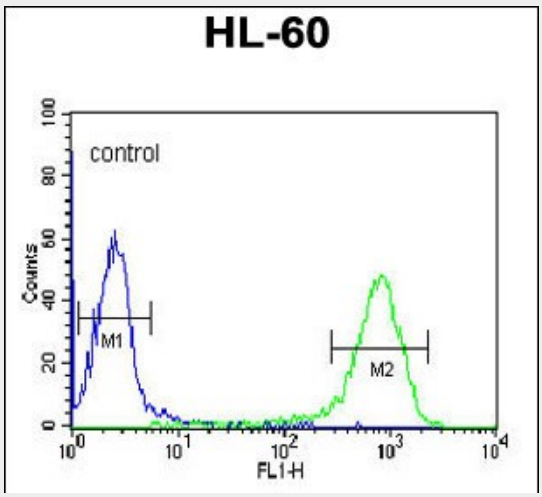
Western blot analysis of DCP2 Antibody (Center) (Cat. #AP9182c) in HL-60 cell line lysates (35ug/lane). DCP2 (arrow) was detected using the purified Pab.



DCP2 Antibody (Center) (Cat. #AP9182c) IHC analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the DCP2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



DCP2 Antibody (Center) (Cat. #AP9182c) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

DCP2 Antibody (Center) - Background

DCP2 is a key component of an mRNA-decapping complex required for removal of the 5-prime cap from mRNA prior to its degradation from the 5-prime end (Fenger-Gron et al., 2005).

DCP2 Antibody (Center) - References

Yamochi,T., et.al., Biochem. Biophys. Res. Commun. 370 (1), 195-199 (2008)
Li,Y., et.al., Mol. Cell. Biol. 28 (3), 939-948 (2008)