

DCP2 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP9182c**Specification**

DCP2 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [Q8IU60](#)**DCP2 Antibody (Center) Blocking Peptide - 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

The synthetic peptide sequence used to generate the antibody [AP9182c](/products/AP9182c) was selected from the Center region of human DCP2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DCP2 Antibody (Center) Blocking Peptide - Protein Information**Name** DCP2**Synonyms** NUDT20**Function**

Decapping metalloenzyme that catalyzes the cleavage of the cap structure on mRNAs (PubMed: [12218187](http://www.uniprot.org/citations/12218187), PubMed: [12417715](http://www.uniprot.org/citations/12417715), PubMed: [12923261](http://www.uniprot.org/citations/12923261), PubMed: [21070968](http://www.uniprot.org/citations/21070968), PubMed: [28002401](http://www.uniprot.org/citations/28002401), PubMed: [31875550](http://www.uniprot.org/citations/31875550)). Removes the 7-methyl guanine cap structure from mRNA molecules, yielding a 5'-phosphorylated mRNA fragment and 7m-GDP (PubMed: [12486012](http://www.uniprot.org/citations/12486012))

target="_blank">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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

DCP2 Antibody (Center) Blocking Peptide - Images

DCP2 Antibody (Center) Blocking Peptide - 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) Blocking Peptide - 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)