

**DCP1A Antibody (monoclonal) (M06)**

Mouse monoclonal antibody raised against a partial recombinant DCP1A.

Catalog # AT1717a

**Specification**

---

**DCP1A Antibody (monoclonal) (M06) - Product Information**

Application	WB, IF, E
Primary Accession	<a href="#">O9NPI6</a>
Other Accession	<a href="#">NM_018403</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG2a Kappa
Calculated MW	63278

**DCP1A Antibody (monoclonal) (M06) - Additional Information**

Gene ID 55802

**Other Names**

mRNA-decapping enzyme 1A, 3---, Smad4-interacting transcriptional co-activator, Transcription factor SMIF, DCP1A, SMIF

**Target/Specificity**

DCP1A (NP\_060873, 186 a.a. ~ 285 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

IF~~1:50~200

E~~N/A

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

DCP1A Antibody (monoclonal) (M06) is for research use only and not for use in diagnostic or therapeutic procedures.

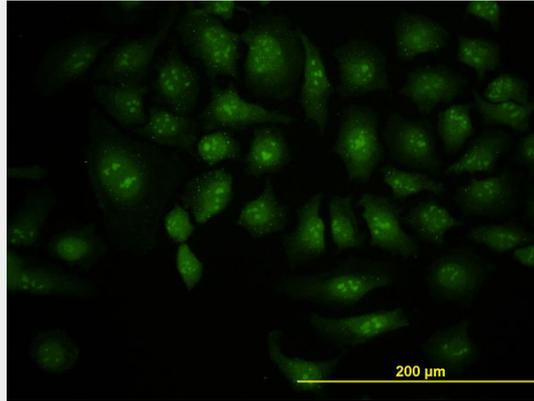
**DCP1A Antibody (monoclonal) (M06) - Protocols**

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](#)

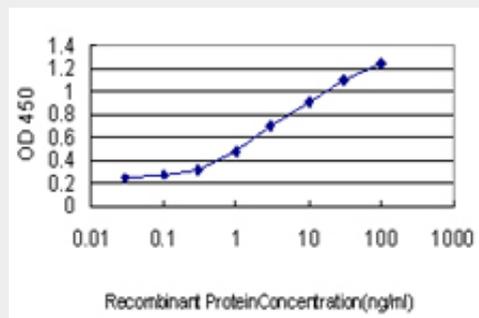
### DCP1A Antibody (monoclonal) (M06) - Images



Immunofluorescence of monoclonal antibody to DCP1A on HeLa cell. [antibody concentration 10 ug/ml]



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (36.74 KDa) .



Detection limit for recombinant GST tagged DCP1A is approximately 0.1ng/ml as a capture antibody.

## DCP1A Antibody (monoclonal) (M06) - Background

Decapping is a key step in general and regulated mRNA decay. The protein encoded by this gene is a decapping enzyme. This protein and another decapping enzyme form a decapping complex, which interacts with the nonsense-mediated decay factor hUpf1 and may be recruited to mRNAs containing premature termination codons. This protein also participates in the TGF-beta signaling pathway.

## DCP1A Antibody (monoclonal) (M06) - References

1.CCHCR1 interacts with EDC4, suggesting its localization in P-bodies.Ling YH, Wong CC, Li KW, Chan KM, Boukamp P, Liu WK*Exp Cell Res.* 2014 May 21. pii: S0014-4827(14)00199-2. doi: 10.1016/j.yexcr.2014.05.008.2.Processing bodies accumulate in human cytomegalovirus-infected cells and do not affect viral replication at high multiplicity of infection.Seto E, Inoue T, Nakatani Y, Yamada M, Isomura H.*Virology* 458-459 (2014) 151-161.3.5-Fluorouracil affects assembly of stress granules based on RNA incorporation.Kaehler C, Isensee J, Hucho T, Lehrach H, Krobitsch S*Nucleic Acids Res.* 2014 Apr 11.4.hnRNP L and NF90 interact with hepatitis C virus 5' terminal untranslated RNA and promote efficient replication.Li Y, Masaki T, Shimakami T, Lemon SM*J Virol.* 2014 Apr 9.5.C9orf72 nucleotide repeat structures initiate molecular cascades of disease.Haeusler AR, Donnelly CJ, Periz G, Simko EA, Shaw PG, Kim MS, Maragakis NJ, Troncoso JC, Pandey A, Sattler R, Rothstein JD, Wang J*Nature.* 2014 Mar 13;507(7491):195-200. doi: 10.1038/nature13124. Epub 2014 Mar 5.6.Multiple mechanisms repress N-Bak mRNA translation in the healthy and apoptotic neurons.Jakobson M, Jakobson M, Llano O, Palgi J, Arumae U*Cell Death Dis.* 2013 Aug 22;4:e777. doi: 10.1038/cddis.2013.297.7.Zinc-finger antiviral protein mediates retinoic acid inducible gene I-like receptor-independent antiviral response to murine leukemia virus.Lee H, Komano J, Saitoh Y, Yamaoka S, Kozaki T, Misawa T, Takahama M, Satoh T, Takeuchi O, Yamamoto N, Matsuura Y, Saitoh T, Akira S*Proc Natl Acad Sci U S A.* 2013 Jul 8.8.Identification and analysis of a novel dimerization domain shared by various members of JNK scaffold proteins.Cohen-Katsenelson K, Wasserman T, Darlyuk-Saadon I, Rabner A, Glaser F, Aronheim A.*J Biol Chem.* 2013 Jan 22. [Epub ahead of print]9.Pdc1 Functions in the Assembly of P Bodies in *Schizosaccharomyces pombe*.Wang CY, Chen WL, Wang S*Mol Cell Biol.* 2013 Mar;33(6):1244-53. doi: 10.1128/MCB.01583-12. Epub 2013 Jan 14.10.Identification of DEAD-box RNA Helicase 6 (DDX6) as a Cellular Modulator of Vascular Endothelial Growth Factor Expression under Hypoxia.de Vries S, Naarmann-de Vries IS, Urlaub H, Lue H, Bernhagen J, Ostareck DH, Ostareck-Lederer AJ *Biol Chem.* 2013 Feb 22;288(8):5815-27. doi: 10.1074/jbc.M112.420711. Epub 2013 Jan 4.11.The P Body Protein Dcp1a Is Hyper-phosphorylated during Mitosis.Aizer A, Kafri P, Kalo A, Shav-Tal Y.*PLoS One.* 2013;8(1):e49783. doi: 10.1371/journal.pone.0049783. Epub 2013 Jan 2.12.BUHO: A MATLAB Script for the Study of Stress Granules and Processing Bodies by High-Throughput Image Analysis.Perez-Pepe M, Slomiansky V, Loschi M, Luchelli L, Neme M, Thomas MG, Boccaccio GL.*PLoS One.* 2012;7(12):e51495. doi: 10.1371/journal.pone.0051495. Epub 2012 Dec 20.13.Competing and noncompeting activities of miR-122 and the 5' exonuclease Xrn1 in regulation of hepatitis C virus replication.Li Y, Masaki T, Yamane D, McGivern DR, Lemon SM.*Proc Natl Acad Sci U S A.* 2012 Dec 17.14.The NS1 Protein of Influenza A Virus Interacts with Cellular Processing Bodies and Stress Granules through RNA-Associated Protein 55 (RAP55) during Virus Infection.Mok BW, Song W, Wang P, Tai H, Chen Y, Zheng M, Wen X, Lau SY, Wu WL, Matsumoto K, Yuen KY, Chen H.*J Virol.* 2012 Dec;86(23):12695-707. doi: 10.1128/JVI.00647-12. Epub 2012 Sep 12.15.LSm14A is a processing body-associated sensor of viral nucleic acids that initiates cellular antiviral response in the early phase of viral infection.Li Y, Chen R, Zhou Q, Xu Z, Li C, Wang S, Mao A, Zhang X, He W, Shu HB.*Proc Natl Acad Sci U S A.* 2012 Jun 28.16.A Monoclonal Antibody against p53 Cross-React with Processing Bodies.Thomas MG, Luchelli L, Pascual M, Gottifredi V, Boccaccio GL.*PLoS One.* 2012;7(5):e36447. Epub 2012 May 10.17.PKC? Binds G3BP2 and Regulates Stress Granule Formation Following Cellular Stress.Kobayashi T, Winslow S, Sunesson L, Hellman U, Larsson C.*PLoS One.* 2012;7(4):e35820. Epub 2012 Apr 20.18.Identification of the P-body component PATL1 as a novel ALG-2-interacting protein by in silico and Far-Western screening of proline-rich proteins.Osugi K, Suzuki H, Nomura T, Ariumi Y, Shibata H, Maki M.*J Biochem.* 2012 Mar 20. [Epub ahead of

print]19.Smaug1 mRNA-silencing foci respond to NMDA and modulate synapse formation. Baez MV, Luchelli L, Maschi D, Habif M, Pascual M, Thomas MG, Boccaccio GL. *J Cell Biol.* 2011 Dec 26;195(7):1141-57. 20. The DEAD-box RNA Helicase DDX6 is Required for Efficient Encapsidation of a Retroviral Genome. Yu SF, Lujan P, Jackson DL, Emerman M, Linial ML. *PLoS Pathog.* 2011 Oct;7(10):e1002303. Epub 2011 Oct 13. 21. c-Jun N-terminal kinase phosphorylates DCP1a to control formation of P bodies. Rzeczkowski K, Beuerlein K, Muller H, Dittrich-Breiholz O, Schneider H, Kettner-Buhrow D, Holtmann H, Kracht M. *J Cell Biol.* 2011 Aug 22;194(4):581-96. 22. Differential utilization of decapping enzymes in mammalian mRNA decay pathways. Li Y, Song M, Kiledjian M. *RNA.* 2011 Mar;17(3):419-28. Epub 2011 Jan 11. 23. NANOS2 interacts with the CCR4-NOT deadenylation complex and leads to suppression of specific RNAs. Suzuki A, Igarashi K, Aisaki KI, Kanno J, Saga Y. *Proc Natl Acad Sci U S A.* 2010 Feb 2. [Epub ahead of print] 24. Cytoplasmic Compartmentalization of the Fetal piRNA Pathway in Mice. Aravin AA, van der Heijden GW, Castaneda J, Vagin VV, Hannon GJ, Bortvin A. *PLoS Genet.* 2009 Dec;5(12):e1000764. 25. A novel c-Jun N-terminal kinase (JNK)-binding protein WDR62 is recruited to stress granules and mediates a nonclassical JNK activation. Wasserman T, Katsenelson K, Daniliuc S, Hasin T, Choder M, Aronheim A. *Mol Biol Cell.* 2010 Jan;21(1):117-30. Epub 2009 Nov 12. 26. A large ribonucleoprotein particle induced by cytoplasmic PrP shares striking similarities with the chromatoid body, an RNA granule predicted to function in posttranscriptional gene regulation. Beaudoin S, Vanderperre B, Grenier C, Tremblay I, Leduc F, Roucou X. *Biochim Biophys Acta.* 2009 Feb;1793(2):335-45. Epub 2008 Oct 30. 27. The Dynamics of Mammalian P Body Transport, Assembly and Disassembly In Vivo. Aizer A, Brody Y, Ler LW, Sonenberg N, Singer RH, Shav-Tal Y. *Mol Biol Cell.* 2008 Oct;19(10):4154-66. Epub 2008 Jul 23.