Revision 1

Store at -20C

#15365

# DCP1A (D6V1R) Rabbit mAb

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| W | H Mk | Endogenous | 73,75 | Rabbit IgG | #Q9NPI6 | 55802 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

DCP1A (D6V1R) Rabbit mAb recognizes endogenous levels of total DCP1A protein. This antibody may also detect a nonspecific band of about 85 kDa. This antibody does not cross-react with DCP1B protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu436 of human DCP1A protein.

## Background

mRNA decapping is an important process in the mRNA turnover (1). DCP1A and DCP2 were identified as two human decapping enzymes and homologs of the better-characterized *S. cerevisiae* enzymes. Both putative decapping enzymes interact with the regulator of nonsense transcripts 1 (UPF1) and may be recruited by UPF1 or related proteins to mRNA sequences that contain premature termination codons (1). Additional research studies demonstrate that DCP1A, DCP1B (the homolog of DCP1A) and DCP2 colocalize with decapping activation factors RCK/p54 and Lsm proteins in cytoplasmic loci (2). DCP1A, DCP1B and DCP2 are components of cytoplasmic processing (P) bodies, with hyper-phosphorylation of DCP1A during mitosis suggesting a possible mechanism of P-body regulation during the cell cycle (3,4).

## Background References

1. Lykke-Andersen, J. (2002) *Mol Cell Biol* 22, 8114-21.
2. Cougot, N. et al. (2004) *J Cell Biol* 165, 31-40.
3. Hey, F. et al. (2012) *J Biol Chem* 287, 31073-84.
4. Aizer, A. et al. (2013) *PLoS One* 8, e49783.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting

## Cross-Reactivity Key

**H:** Human **Mk:** Monkey

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## Limited Uses

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