### bs-12986R

- DATASHEET -

## [ Primary Antibody ]

Isotype: IgG

SWISS: 09NPI6

# DCP1A Rabbit pAb

Host: Rabbit

Clonality: Polyclonal

GenelD: 55802

Target: DCP1A



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Applications: WB (1:500-2000) IHC-P (1:100-500) IHC-F (1:100-500) IF (1:100-500)

Reactivity: Human, Mouse, Rat (predicted: Rabbit, Pig, Cow, Dog)

Predicted MW.: 63 kDa

Subcellular Location: Cytoplasm

Immunogen: KLH conjugated synthetic peptide derived from human DCP1A: 501-582/582. Purification: affinity purified by Protein A

#### Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: Cleavage of the 5'-cap structure is involved in the major 5'-to-3' and nonsense-mediated mRNA decay pathways. The protein complex consisting of Dcp1 and Dcp2 has been identified as the species responsible for the decapping reaction in Saccharomyces cerevisiae. In nonsense-mediated decay, the human decapping complex, made up of S. cerevisiae homologs hDcp1a and hDcp2, may be recruited to mRNAs containing premature termination codons by nonsense-mediated decay factor (Upf) proteins. hDcp2 specifically hydrolyzes methylated capped RNA to release m(7)GDP, thereby aiding in mRNA degradation. Both hDcp1a and hDcp2 colocalize in the cytoplasm. In addition, hDcp1a interacts with Smad4 forming a complex with TGF Beta and BMP-4. hDcp1a and Smad4 interact directly through a EVH1/WH1 domain on hDcp1a and a proline-rich activation domain on Smad4. Smad4 is essential to nuclear translocation of hDcp1a as deletion of the Smad4-interacting domain (located in the N-terminal 100 amino acids) of hDcp1a eliminates TGF Beta-induced nuclear translocation of hDcp1a.

## - VALIDATION IMAGES



Sample: Lung (Mouse) Lysate at 40 ug Liver (Mouse) Lysate at 40 ug Primary: Anti-DCP1A (bs-12986R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 63 kD Observed band size: 63 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffinembedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-DCP1A Polyclonal Antibody, Unconjugated(bs-12986R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (DCP1A) Polyclonal Antibody, Unconjugated (bs-12986R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.