

CPSF6 Antibody

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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, IP	H M R Mk	Endogenous	68	Rabbit	#Q16630	11052

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

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

Specificity/Sensitivity

CPSF6 Antibody recognizes endogenous levels of total CPSF6 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu56 of human CPSF6 protein. Antibodies are purified by peptide affinity chromatography.

Background

Cleavage and polyadenylation of pre-mRNA is regulated by a core group of proteins called the cleavage and polyadenylation specificity factors (CPSF) (1,2). The CPSF proteins interact with poly(A) polymerase (PAP) to recognize the AAUAAA sequence motif and add poly(A). CPSF can also interact with downstream cleavage factors to precisely cleave the 3' end of pre-mRNA (2,3). CPSF is brought to 3' ends by the carboxy-terminal domain of the Rpb1 subunit of the RNA Polymerase II complex, where it dissociates and initiates polyadenylation (4). CPSF has been shown to have numerous interactions with viral proteins. The influenza NS1 viral protein binds to CPSF4 to prevent 3' end processing of viral RNAs, inhibiting nuclear export (5).

CPSF6 is a 68 kDa member of the CPSF group that has been shown to target the HIV-1 viral capsid (CA) (6). A truncated form of CPSF6, CPSF6-358, localizes exclusively in the cytoplasm and can oligomerize to bind CA, restricting HIV infection and nuclear entry (7,8).

Background References

1. Rügsegger, U. et al. (1996) *J Biol Chem* 271, 6107-13.
2. Murthy, K.G. and Manley, J.L. (1992) *J Biol Chem* 267, 14804-11.
3. Bienroth, S. et al. (1993) *EMBO J* 12, 585-94.
4. Hirose, Y. and Manley, J.L. (1998) *Nature* 395, 93-6.
5. Nemeroff, M.E. et al. (1998) *Mol Cell* 1, 991-1000.
6. Lee, K. et al. (2010) *Cell Host Microbe* 7, 221-33.
7. Lee, K. et al. (2012) *J Virol* 86, 3851-60.
8. Ning, J. et al. (2018) *J Virol* 92.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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