

# CPSF6 (G-20): sc-79421

## BACKGROUND

3' ends of eukaryotic mRNAs can undergo processing events that include endonucleolytic cleavage and polyadenylation. Cleavage and polyadenylation specificity factors (CPSF) mediate 3' cleavage of the transcript and subsequent polyadenylation. CPSF6, also known as CF<sub>I</sub><sub>m</sub>68 (mammalian cleavage factor I, 68 kDa subunit), HPBR11-4 or HPBR11-7, is a member of the CPSF6/7 family and contains an N-terminal RNA recognition motif (RRM) and a C-terminal RS-like domain. Via its RS-like domain, CPSF6 interacts with SRp20, Tra-2β and 9G8. CPSF6 localizes to the paraspeckles and forms a heterodimer with NUDT21, comprising the CF<sub>I</sub><sub>m</sub> complex which is essential for the first step in pre-mRNA 3' cleavage and polyadenylation processing. CPSF6 is the larger subunit of the complex and is present in only half of the two heterodimer combinations (the other half being a dimer of NUDT21 and CPSF7).

## REFERENCES

- Jenny, A., Minvielle-Sebastia, L., Preker, P.J. and Keller, W. 1996. Sequence similarity between the 73-kilodalton protein of mammalian CPSF and a subunit of yeast polyadenylation factor I. *Science* 274: 1514-1517.
- Salinas, C.A., Sinclair, D.A., O'Hare, K. and Brock, H.W. 1998. Characterization of a *Drosophila* homologue of the 160 kDa subunit of the cleavage and polyadenylation specificity factor CPSF. *Mol. Gen. Genet.* 257: 672-680.
- Edmonds, M. 2002. A history of poly A sequences: from formation to factors to function. *Prog. Nucleic Acid Res. Mol. Biol.* 71: 285-389.
- Dettwiler, S., Aringhieri, C., Cardinale, S., Keller, W. and Barabino, S.M. 2004. Distinct sequence motifs within the 68 kDa subunit of cleavage factor I<sub>m</sub> mediate RNA binding, protein-protein interactions, and subcellular localization. *J. Biol. Chem.* 279: 35788-35797.
- López-Camarillo, C., Orozco, E. and Marchat, L.A. 2005. *Entamoeba histolytica*: comparative genomics of the pre-mRNA 3' end processing machinery. *Exp. Parasitol.* 110: 184-190.

## CHROMOSOMAL LOCATION

Genetic locus: CPSF6 (human) mapping to 12q15; Cpsf6 (mouse) mapping to 10 D2.

## SOURCE

CPSF6 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CPSF6 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79421 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CPSF6 (G-20) is recommended for detection of CPSF6 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CPSF6 (G-20) is also recommended for detection of CPSF6 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for CPSF6 siRNA (h): sc-72990, CPSF6 siRNA (m): sc-72991, CPSF6 shRNA Plasmid (h): sc-72990-SH, CPSF6 shRNA Plasmid (m): sc-72991-SH, CPSF6 shRNA (h) Lentiviral Particles: sc-72990-V and CPSF6 shRNA (m) Lentiviral Particles: sc-72991-V.

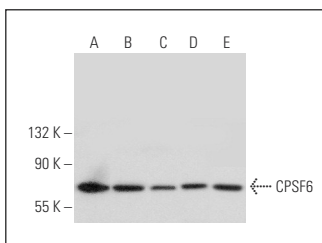
Molecular Weight of CPSF6: 68 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, NIH/3T3 whole cell lysate: sc-2210 or HL-60 whole cell lysate: sc-2209.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CPSF6 (G-20): sc-79421. Western blot analysis of CPSF6 expression in HeLa nuclear extract (A) and HEK293 (B), NIH/3T3 (C), HL-60 (D) and Jurkat (E) whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

**MONOS**  
Satisfaction  
Guaranteed

Try **CPSF6 (F-3): sc-376228** or **CPSF6 (L16): sc-100692**, our highly recommended monoclonal alternatives to CPSF6 (G-20).