

CPSF4 (G-14): sc-79417

BACKGROUND

CPSF4 (Cleavage and polyadenylation specificity factor subunit 4, NS1 effector domain-binding protein 1) is a nuclear protein that belongs to the CPSF4/YTH1 family and contains five C₂H₁-type zinc fingers and one CCHC-type zinc finger. CPSF4 is a component of the cleavage and polyadenylation specificity factor (CPSF) complex that plays a key role in pre-mRNA 3'-end formation. CPSF is a multisubunit factor consisting of four subunits. CPSF recognizes the AAUAAA signal in the pre-mRNA and interacts with other proteins to facilitate both RNA cleavage and poly(A) synthesis. The largest subunit of CPSF can, by itself, bind preferentially to AAUAAA-containing RNAs and binds specifically to both the suppressor of forked subunit of the cleavage stimulatory factor (CstF) and to poly(A) polymerase. snRNP protein (U1 snRNP-A) interacts with and affects the activity of CPSF by stabilizing the interaction of CPSF with the AAUAAA-containing RNAs to increase the efficiency of polyadenylation. Efficient processing of 3' core poly(A) site also requires specific sequences located 76 nucleotides upstream of the AAUAAA hexamer.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CPSF4 (human) mapping to 7q22.1; Cpsf4 (mouse) mapping to 5 G2.

SOURCE

CPSF4 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CPSF4 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-79417 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CPSF4 (G-14) is recommended for detection of CPSF4 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).

CPSF4 (G-14) is also recommended for detection of CPSF4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CPSF4 siRNA (h): sc-72988, CPSF4 siRNA (m): sc-72989, CPSF4 shRNA Plasmid (h): sc-72988-SH, CPSF4 shRNA Plasmid (m): sc-72989-SH, CPSF4 shRNA (h) Lentiviral Particles: sc-72988-V and CPSF4 shRNA (m) Lentiviral Particles: sc-72989-V.

Molecular Weight of CPSF4: 30 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **CPSF4 (A-11): sc-393316** or **CPSF4 (F-8): sc-514752**, our highly recommended monoclonal alternatives to CPSF4 (G-14).