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Product Information

Anti-CPSF4
produced in rabbit, affinity isolated antibody

Product Number **SAB4200170**

Product Description

Anti-CPSF4 is produced in rabbit using as the immunogen a synthetic peptide corresponding to a fragment of human CPSF4 (GeneID: 10898) conjugated to KLH. The corresponding sequence is identical in mouse and rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-CPSF4 recognizes human CPSF4. The antibody may be used in various immunochemical techniques including immunoblotting (~30 kDa). Detection of the CPSF4 band by immunoblotting is specifically inhibited with the immunizing peptide.

mRNA precursors are processed at the 3′-ends in a two-step reaction: endonucleolytic cleavage at the poly(A) site followed by the addition of adenylate residues to form a poly(A) tail. The mammalian mRNA 3′ ends processing complex contains several sub-complexes. These include the cleavage-polyadenylation specificity factor (CPSF), which recognizes the nearly ubiquitous AAUAAA signal; cleavage stimulatory factor (CstF), which interacts with a less-conserved G/U-rich sequence situated downstream of the cleavage site; cleavage factors I and II (CFI and CFII) and finally poly(A) polymerase (PAP). CPSF is a large protein complex containing subunits of 160, 100, 73, and 30 kDa, referred to as CPSF1 (CPSF-160), CPSF2 (CPSF-100), CPSF3 (CPSF-73) and CPSF4 (CPSF-30), respectively, as well as hFip, all required for efficient cleavage and polyadenylation of pre-mRNAs.[1-2]

CPSF4 (also known, in addition to CPSF-30, as NS1 effector domain-binding protein 1, Neb-1) is required for both cleavage and polyadenylation. It contains five CCCH zinc finger motifs (ZF1-ZF5), which have been shown to bind RNA by UV crosslinking experiments and are also involved in protein-protein interactions.[3]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody concentration of 1-2 μg/mL is recommended using whole extracts of HEK-293T cells overexpressing human CPSF4.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Zhao, J., et al., *Microbiol. Mol. Biol. Rev.*, **63**, 405–445 (1999).
2. Mandel, C.R., et al., *Cell. Mol. Life Sci.*, **65**, 1099-1122 (2008).
3. Barabino, S.M.L., et al., *Genes Develop.*, **11**, 1703–1716 (1997).

VS,SG,RC,KAA,PHC,MAM 07/19-1