

## Product Information

### Anti-CPSF2

produced in rabbit, affinity isolated antibody

Catalog Number **C1747**

#### Product Description

Anti-CPSF2 is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 471-485 of human CPSF2 (GeneID: 53981) conjugated to KLH. The corresponding sequence is identical in mouse. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-CPSF2 recognizes human CPSF2 (also known as Cleavage and Polyadenylation Specificity Factor 100 kDa subunit or CPSF 100 kDa subunit). The antibody may be used in several immunochemical techniques including immunoblotting (~100 kDa), immuno-precipitation, and immunofluorescence. Detection of the CPSF2 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, the 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 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, and hFip, all required for efficient cleavage and polyadenylation of pre-mRNAs.<sup>1,2</sup> The function of CPSF2 in 3'-end processing is currently unknown.

#### 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

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

Store at -20 °C. For continuous use, the product may be stored 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 2-4 µg/mL is recommended using K562 cell lysates.

Immunoprecipitation: a working antibody amount of 2-5 µg is recommended using A20 cell lysates.

Immunofluorescence: a working antibody concentration of 1-2 µg/mL is recommended using paraformaldehyde fixed HeLa cells.

**Note**: In order to obtain the best results using various techniques and preparations, we recommend determining the 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).

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