

CPSF73 Antibody

Rabbit mAb Catalog # AP92738

Product Information

Application WB, IF, FC, ICC **Primary Accession** Q9UKF6

Reactivity Rat, Human, Mouse

Clonality Monoclonal

Other Names CPSF; cpsf3; CPSF73; YSH1;

IsotypeRabbit IgGHostRabbitCalculated MW77486

Additional Information

Dilution WB 1:500~1:2000 ICC/IF 1:50~1:200 FC 1:50

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human CPSF73

Description Component of the cleavage and polyadenylation specificity factor (CPSF)

complex that play a key role in pre-mRNA 3'-end formation, recognizing the AAUAAA signal sequence and interacting with poly(A) polymerase and other

factors to bring about cleavage and poly(A) addition.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium

azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term.

Avoid freeze / thaw cycle.

Protein Information

Name CPSF3

Synonyms CPSF73

Function Component of the cleavage and polyadenylation specificity factor (CPSF)

complex that plays a key role in pre-mRNA 3'-end formation, recognizing the AAUAAA signal sequence and interacting with poly(A) polymerase and other factors to bring about cleavage and poly(A) addition. Has endonuclease activity, and functions as an mRNA 3'-end-processing endonuclease

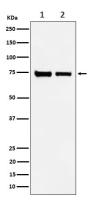
(PubMed:30507380). Also involved in the histone 3'-end pre-mRNA processing (PubMed:30507380). U7 snRNP- dependent protein that induces both the 3'-endoribonucleolytic cleavage of histone pre-mRNAs and acts as a 5' to 3' exonuclease for degrading the subsequent downstream cleavage product (DCP) of mature histone mRNAs. Cleavage occurs after the 5'-ACCCA-3' sequence in the histone pre-mRNA leaving a 3'hydroxyl group on the upstream fragment containing the stem loop (SL) and 5' phosphate on the downstream cleavage product (DCP) starting with CU nucleotides. The

U7-dependent 5' to 3' exonuclease activity is processive and degrades the DCP RNA substrate even after complete removal of the U7-binding site. Binds to the downstream cleavage product (DCP) of histone pre-mRNAs and the cleaved DCP RNA substrate in a U7 snRNP dependent manner. Required for entering/progressing through S-phase of the cell cycle (PubMed:30507380). Required for the selective processing of microRNAs (miRNAs) during embryonic stem cell differentiation via its interaction with ISY1 (By similarity). Required for the biogenesis of all miRNAs from the pri-miR-17-92 primary transcript except miR-92a (By similarity). Only required for the biogenesis of miR-290 and miR-96 from the pri-miR-290-295 and pri-miR-96-183 primary transcripts, respectively (By similarity).

Cellular Location

Nucleus.

Images



Western blot analysis of CPSF73 expression in (1) Hela cell lysate; (2) NIH/3T3 cell lysate.

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