

CPSF6 Rabbit mAb

Catalog # AP75287

Product Information

Application WB, IHC-P, IHC-F, IP, ICC

Primary Accession Q16630

Reactivity Human, Mouse, Rat

Host Rabbit

Clonality Monoclonal Antibody

Calculated MW 59210

Additional Information

Gene ID 11052

Other Names CPSF6

Dilution WB~~1/500-1/1000 IHC-P~~N/A IHC-F~~N/A IP~~N/A ICC~~N/A

Format 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and

0.05% BSA.

Storage Store at 4°C short term. Aliquot and store at -20°C long term. Avoid

freeze/thaw cycles.

Protein Information

Name CPSF6 (HGNC:13871)

Function Component of the cleavage factor Im (CFIm) complex that functions as an

activator of the pre-mRNA 3'-end cleavage and polyadenylation processing

required for the maturation of pre-mRNA into functional mRNAs

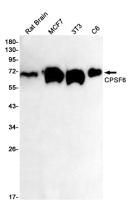
(PubMed:14690600, PubMed:29276085, PubMed:8626397, PubMed:9659921). CFIm contributes to the recruitment of multiprotein complexes on specific sequences on the pre-mRNA 3'-end, so called cleavage and polyadenylation signals (pA signals) (PubMed:14690600, PubMed:8626397, PubMed:9659921). Most pre-mRNAs contain multiple pA signals, resulting in alternative cleavage and polyadenylation (APA) producing mRNAs with variable 3'-end formation (PubMed:23187700, PubMed:29276085). The CFIm complex acts as a key regulator of cleavage and polyadenylation site choice during APA through its binding to 5'- UGUA-3' elements localized in the 3'-untranslated region (UTR) for a huge number of pre-mRNAs (PubMed:20695905, PubMed:29276085). CPSF6 enhances NUDT21/CPSF5 binding to 5'-UGUA-3' elements localized upstream of pA signals and promotes RNA looping, and hence activates directly the mRNA 3'-processing machinery (PubMed:15169763, PubMed:21295486, PubMed:29276085). Plays a role in mRNA export

(PubMed:<u>19864460</u>).

Cellular Location

Nucleus. Nucleus, nucleoplasm. Nucleus speckle. Cytoplasm. Note=Shuttles between the nucleus and the cytoplasm in a transcription- and XPO1/CRM1-independent manner, most probably in complex with the cleavage factor Im complex (CFIm) (PubMed:19864460). Colocalizes with PSPC1 in punctate subnuclear structures often located adjacent to nuclear speckles, called paraspeckles, and corresponding to interchromatin granules-associated zones (IGAZs) (PubMed:17267687). Distribution in speckles and paraspeckles varies during the cell cycle (PubMed:17267687). Associates at sites of active transcription on nascent perichromatin fibrils (PFs) and perichromatin granules (PubMed:17267687). Nuclear import is mediated via interaction with TNPO3 independently of CPSF6 phosphorylation status (PubMed:30916345).

Images



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