

CPSF6 Blocking Peptide (N-term)
Synthetic peptide
Catalog # BP20278a

Specification

CPSF6 Blocking Peptide (N-term) - Product Information

Primary Accession [O16630](#)
Other Accession [O6DDW4](#), [O6NVF9](#), [O6NWC6](#), [O5ZL34](#), [O0P5D2](#),
[NP_008938.2](#)

CPSF6 Blocking Peptide (N-term) - Additional Information

Gene ID 11052

Other Names

Cleavage and polyadenylation specificity factor subunit 6, Cleavage and polyadenylation specificity factor 68 kDa subunit, CFIm68, CPSF 68 kDa subunit, Pre-mRNA cleavage factor Im 68 kDa subunit, Protein HPBR11-4/7, CPSF6, CFIM68

Target/Specificity

The synthetic peptide sequence is selected from aa 38-51 of HUMAN CPSF6

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CPSF6 Blocking Peptide (N-term) - 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](http://www.uniprot.org/citations/14690600) target="_blank">14690600, PubMed: [29276085](http://www.uniprot.org/citations/29276085) target="_blank">29276085, PubMed: [8626397](http://www.uniprot.org/citations/8626397) target="_blank">8626397, PubMed: [9659921](http://www.uniprot.org/citations/9659921) target="_blank">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](http://www.uniprot.org/citations/14690600) target="_blank">14690600, PubMed: [8626397](http://www.uniprot.org/citations/8626397) target="_blank">8626397, PubMed: [9659921](http://www.uniprot.org/citations/9659921) target="_blank">9659921).

target="_blank">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:19864460).

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).

CPSF6 Blocking Peptide (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

CPSF6 Blocking Peptide (N-term) - Images

CPSF6 Blocking Peptide (N-term) - Background

The protein encoded by this gene is one subunit of a cleavage factor required for 3' RNA cleavage and polyadenylation processing. The interaction of the protein with the RNA is one of the earliest steps in the assembly of the 3' end processing complex and facilitates the recruitment of other processing factors. The cleavage factor complex is composed of four polypeptides. This gene encodes the 68kD subunit. It has a domain organization reminiscent of spliceosomal proteins.

CPSF6 Blocking Peptide (N-term) - References

Lee, K., et al. Cell Host Microbe 7(3):221-233(2010)
Ruepp, M.D., et al. Mol. Biol. Cell 20(24):5211-5223(2009)
Xin, X., et al. Genome Res. 19(7):1262-1269(2009)
Maggi, L.B. Jr., et al. Mol. Cell. Biol. 28(23):7050-7065(2008)
Gudbjartsson, D.F., et al. Nat. Genet. 40(5):609-615(2008)