abcam

ab175237

Anti-CPSF6 antibody [EPR12898]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 50% Tissue culture supernatant, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12898
Purity	Tissue culture supernatant

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Predicted

Species	Mouse, Rat, Chicken, Cow, Xenopus laevis

Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Predicted

Species	Mouse, Rat, Chicken, Cow, Xenopus laevis
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Predicted

Species	Mouse, Rat, Chicken, Cow, Xenopus laevis
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250

Notes	-

Predicted

Species	Mouse, Rat, Chicken, Cow, Xenopus laevis
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat, Chicken, Cow, Xenopus laevis
Dilution info	-
Notes	-

Target data

See full target information CPSF6

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:19864460). (Microbial infection) Binds HIV-1 capsid-nucleocapsid (HIV-1 CA-NC) complexes and might thereby promote the integration of the virus in the nucleus of dividing cells (in vitro).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Cleavage and Polyadenylation Specificity Factor 6 (CPSF6) also referred to as CFIm68 for its molecular weight of approximately 68 kDa plays an important role in mRNA processing. The protein is expressed widely in various tissues emphasizing its broad functional role in cellular mechanisms. CPSF6 operates as an important component of the cleavage and polyadenylation complex where it

	facilitates the regulation of pre-mRNA 3'-end processing influencing gene expression control.
Biological function summary	CPSF6 influences alternative polyadenylation impacting mRNA maturation by recognizing specific RNA sequences. As part of a broader complex this protein engages in cooperation with components like CPSF5 and CPSF7 showcasing its integrated role in this essential process. The regulation exerted by CPSF6 on polyadenylation modifies the length and stability of mRNA transcripts. This impact on mRNA dynamics is important for normal cellular function and response.
Pathways	CPSF6 integrates into key mRNA processing and maturation pathways affecting transcriptional regulation and mRNA stability. This protein functionally interlinks with RNA polymerase II playing an integral part in the transcriptional machinery. CPSF6 also associates with the spliceosome complex a critical group in mRNA splicing establishing its multi-functional role within gene expression pathways.
Associated diseases and disorders	CPSF6 associations emerge prominently in cancer and viral infections. Abnormalities in CPSF6 expression or function can contribute to oncogenic processes through dysregulated mRNA processing. Additionally CPSF6 has significant links to HIV where it interacts with viral components affecting virus replication. The relationship between CPSF6 and other proteins like CPSF1 in these contexts highlights its involvement in disease progression mechanisms rendering it a potential target for therapeutic strategies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

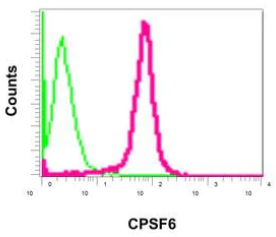
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

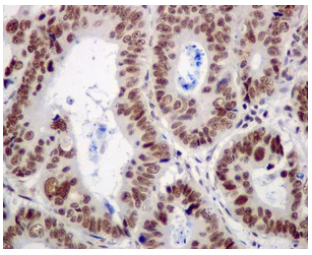
6 product images



Flow Cytometry (Intracellular) - Anti-CPSF6 antibody [EPR12898] (ab175237)

CPSF6 Flow Cytometry (Intracellular) staining using rabbit Anti-CPSF6 antibody

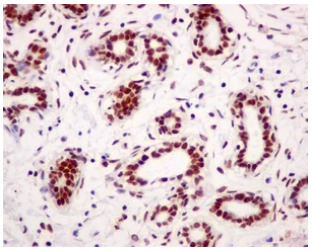
Intracellular flow cytometrical analysis of permeabilized Jurkat cells labeling CPSF6 with ab175237 antibody at 1/10 (red) or a rabbit IgG negative (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CPSF6 antibody [EPR12898] (ab175237)

CPSF6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CPSF6 antibody

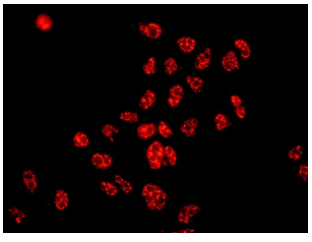
Immunohistochemical analysis of paraffin embedded Human colon carcinoma tissue labeling CPSF6 with ab175237 at 1/100.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CPSF6 antibody [EPR12898] (ab175237)

CPSF6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-CPSF6 antibody

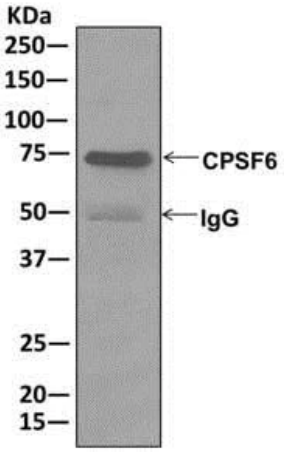
Immunohistochemical analysis of paraffin embedded Human breast tissue labeling CPSF6 with ab175237 at 1/100.
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-CPSF6 antibody [EPR12898] (ab175237)

CPSF6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CPSF6 antibody

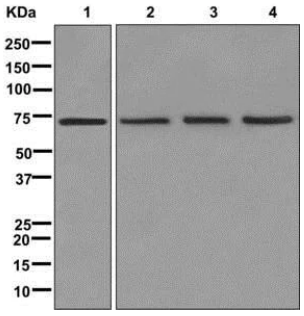
Immunofluorescent analysis of HeLa cells labeling CPSF6 with ab175237 at 1/100.



Immunoprecipitation - Anti-CPSF6 antibody [EPR12898] (ab175237)

Immunoprecipitation of CPSF6 from HeLa cell lysate using ab175237 at 1/10 labeled with ab175237 at 1/10.
All lanes:
Immunoprecipitation - Anti-CPSF6 antibody [EPR12898] (ab175237)

Predicted band size: 59 kDa



Western blot - Anti-CPSF6 antibody [EPR12898] (ab175237)

All lanes:
Western blot - Anti-CPSF6 antibody [EPR12898] (ab175237) at 1/10000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
293T cell lysate at 10 µg

Lane 3:
Jurkat cell lysate at 10 µg

Lane 4:
K562 cell lysate at 10 µg

Predicted band size: 59 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.