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CAF-1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11112A

Product Information

Application	IHC-P, IF, WB, E
Primary Accession	Q9UIV1
Other Accession	Q3KQ85, Q60809, Q08BM8, Q5ZJV9, Q3ZC01, NP_473367.2
Reactivity	Human
Predicted	Bovine, Chicken, Zebrafish, Mouse, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18739
Calculated MW	32745
Antigen Region	34-61

Additional Information

Gene ID	29883
Other Names	CCR4-NOT transcription complex subunit 7, BTG1-binding factor 1, CCR4-associated factor 1, CAF-1, Caf1a, CNOT7, CAF1
Target/Specificity	This CAF-1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 34-61 amino acids from the N-terminal region of human CAF-1.
Dilution	IHC-P~~1:100~500 IF~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CAF-1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CNOT7
Synonyms	CAF1

Function	Has 3'-5' poly(A) exoribonuclease activity for synthetic poly(A) RNA substrate (PubMed:19276069, PubMed:20634287, PubMed:31439799). Its function seems to be partially redundant with that of CNOT8 (PubMed:19605561). Catalytic component of the CCR4-NOT complex which is one of the major cellular mRNA deadenylases and is linked to various cellular processes including bulk mRNA degradation, miRNA-mediated repression, translational repression during translational initiation and general transcription regulation (PubMed:19276069, PubMed:20634287, PubMed:31439799). During miRNA-mediated repression the complex also seems to act as translational repressor during translational initiation (PubMed:20065043). Additional complex functions may be a consequence of its influence on mRNA expression (PubMed:19276069, PubMed:23236473). Associates with members of the BTG family such as TOB1 and BTG2 and is required for their anti- proliferative activity (PubMed:19276069, PubMed:23236473).
Cellular Location	Nucleus. Cytoplasm, P-body {ECO:0000250|UniProtKB:Q60809}. Cytoplasm, Cytoplasmic ribonucleoprotein granule. Note=NANOS2 promotes its localization to P-body (By similarity). Recruited to cytoplasmic ribonucleoprotein membraneless compartments by CAPRIN1, promoting deadenylation of mRNAs (PubMed:31439799) {ECO:0000250|UniProtKB:Q60809, ECO:0000269|PubMed:31439799}

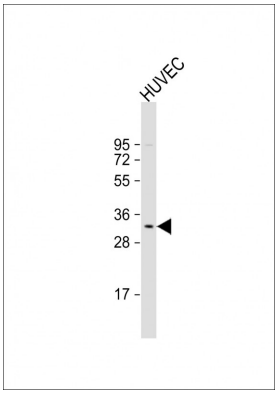
Background

The protein encoded by this gene binds to an anti-proliferative protein, B-cell translocation protein 1, which negatively regulates cell proliferation. Binding of the two proteins, which is driven by phosphorylation of the anti-proliferative protein, causes signaling events in cell division that lead to changes in cell proliferation associated with cell-cell contact. The protein has both mouse and yeast orthologs. Alternate splicing of this gene results in two transcript variants encoding different isoforms.

References

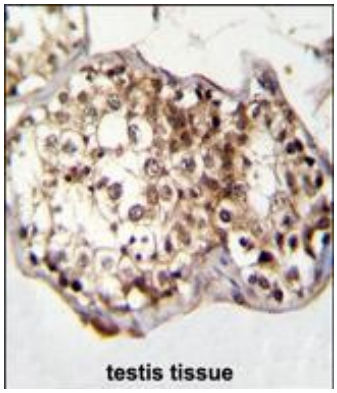
Lau, N.C., et al. Biochem. J. 422(3):443-453(2009)
Aslam, A., et al. Mol. Biol. Cell 20(17):3840-3850(2009)
Miyasaka, T., et al. Cancer Sci. 99(4):755-761(2008)
Nishida, K., et al. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 63 (PT 12), 1061-1063 (2007) :
Robin-Lespinasse, Y., et al. J. Cell. Sci. 120 (PT 4), 638-647 (2007) :

Images

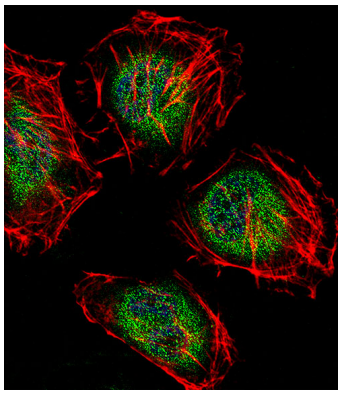


Anti-CAF-1 Antibody (N-term) at 1:1000 dilution + HUVEC whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

CAF-1 Antibody (N-term) (Cat. #AP11112a)immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue



followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CAF-1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Fluorescent confocal image of Hela cell stained with CAF-1 Antibody (N-term)(Cat#AP11112a).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with CAF-1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). CAF-1 immunoreactivity is localized to Cytoplasm and Nucleus significantly.

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