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ACF Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10670b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q9NQ94
Other Accession	NP_620310
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20614
Calculated MW	65202
Antigen Region	394-423

Additional Information

Gene ID	29974
Other Names	APOBEC1 complementation factor, APOBEC1-stimulating protein, A1CF, ACF, ASP {ECO:0000312|EMBL:CAB947541}
Target/Specificity	This ACF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 394-423 amino acids from the C-terminal region of human ACF.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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	ACF Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	A1CF
Synonyms	ACF, ASP {ECO:0000312|EMBL:CAB94754.1}

Function	Essential component of the apolipoprotein B mRNA editing enzyme complex which is responsible for the postranscriptional editing of a CAA codon for Gln to a UAA codon for stop in APOB mRNA. Binds to APOB mRNA and is probably responsible for docking the catalytic subunit, APOBEC1, to the mRNA to allow it to deaminate its target cytosine. The complex also protects the edited APOB mRNA from nonsense- mediated decay.
Cellular Location	Nucleus. Endoplasmic reticulum Cytoplasm. Note=Predominantly nuclear where it localizes to heterochromatin. Also cytoplasmic where it is found at the outer surface of the endoplasmic reticulum (By similarity). Shuttles between the nucleus and cytoplasm. May be transported into the nucleus by the nuclear import protein TNPO2/TRN2 or by APOBEC1.
Tissue Location	Widely expressed with highest levels in brain, liver, pancreas, colon and spleen.

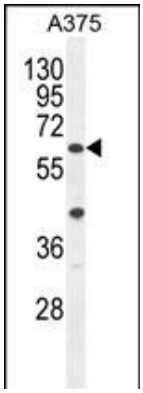
Background

Mammalian apolipoprotein B mRNA undergoes site-specific C to U deamination, which is mediated by a multi-component enzyme complex containing a minimal core composed of APOBEC-1 and a complementation factor encoded by this gene. The gene product has three non-identical RNA recognition motifs and belongs to the hnRNP R family of RNA-binding proteins. It has been proposed that this complementation factor functions as an RNA-binding subunit and docks APOBEC-1 to deaminate the upstream cytidine. Studies suggest that the protein may also be involved in other RNA editing or RNA processing events.

References

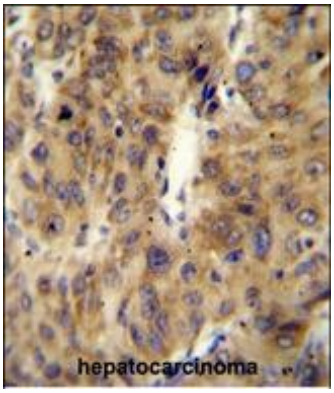
Galloway, C.A., et al. Biochem. Biophys. Res. Commun. 391(1):659-663(2010)
Blanc, V., et al. Mol. Cell. Biol. 25(16):7260-7269(2005)
Deloukas, P., et al. Nature 429(6990):375-381(2004)
Xie, K., et al. Proc. Natl. Acad. Sci. U.S.A. 101(21):8114-8119(2004)
Blanc, V., et al. J. Biol. Chem. 278(42):41198-41204(2003)

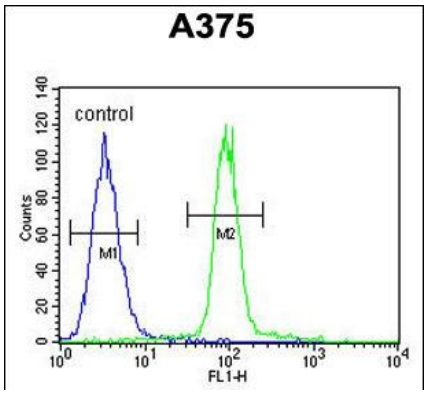
Images



ACF Antibody (C-term) (Cat. #AP10670b) western blot analysis in A375 cell line lysates (35ug/lane).This demonstrates the ACF antibody detected the ACF protein (arrow).

ACF Antibody (C-term) (Cat. #AP10670b) immunohistochemistry analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ACF Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.





ACF Antibody (C-term) (Cat. #AP10670b) flow cytometric analysis of A375 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.