

ACF1 Rabbit pAb

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Catalog # AP58451

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NRL2
Reactivity	Rat
Predicted	Human, Mouse, Dog, Pig, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	178702
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ATP utilizing chromatin assembly and remodeling factor 1
Epitope Specificity	1401-1556/1556
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. May target the CHRAC complex to heterochromatin.
SIMILARITY	Belongs to the WAL family. Contains 1 bromo domain. Contains 1 DDT domain. Contains 1 PHD-type zinc finger. Contains 1 WAC domain.
SUBUNIT	Component of the ACF chromatin remodeling complex that includes BAZ1A and SMARCA5. Additional this complex can form, together with CHRAC1 and POLE1, the histone-fold protein complex, CHRAC. Interacts with NCOR1 (via its RD1 domain); the interaction corepresses a number of NCOR1-regulated genes.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Component of the ACF complex, an ATP-dependent chromatin remodeling complex, that regulates spacing of nucleosomes using ATP to generate evenly spaced nucleosomes along the chromatin. The ATPase activity of the complex is regulated by the length of flanking DNA. Also involved in facilitating the DNA replication process. BAZ1A is the accessory, non-catalytic subunit of the complex which can enhance and direct the process provided by the ATPase subunit, SMARCA5, probably through targeting pericentromeric heterochromatin in late S phase. Moves end-positioned nucleosomes to a predominantly central position. May have a role in nuclear receptor-mediated transcription repression. Component of the histone-fold protein complex CHRAC complex which facilitates nucleosome sliding by the ACF complex and enhances ACF-mediated chromatin assembly. The C-terminal regions of both CHRAC1 and POLE1 are required for these functions.

Additional Information

Gene ID 11177

Other Names	Bromodomain adjacent to zinc finger domain protein 1A, ATP-dependent chromatin-remodeling protein, ATP-utilizing chromatin assembly and remodeling factor 1, hACF1, CHRAC subunit ACF1, Williams syndrome transcription factor-related chromatin-remodeling factor 180, WCRF180, hWALp1, BAZ1A, ACF1, WCRF180
Target/Specificity	Highly expressed in testis and at low or undetectable levels in other tissues analyzed.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

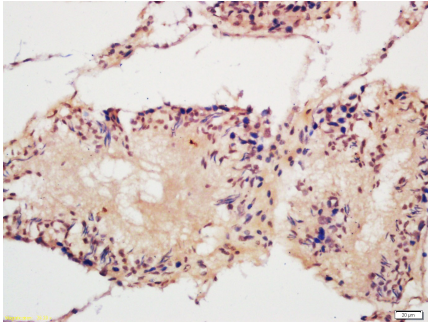
Name	BAZ1A
Synonyms	ACF1, WCRF180
Function	Regulatory subunit of the ATP-dependent ACF-1 and ACF-5 ISWI chromatin remodeling complexes, which form ordered nucleosome arrays on chromatin and slide edge- and center-positioned histone octamers away from their original location on the DNA template to facilitate access to DNA during DNA-templated processes such as DNA replication, transcription, and repair (PubMed: 17099699 , PubMed: 28801535). Both complexes regulate the spacing of nucleosomes along the chromatin and have the ability to slide mononucleosomes to the center of a DNA template in an ATP-dependent manner (PubMed: 14759371 , PubMed: 17099699 , PubMed: 28801535). The ACF-1 ISWI chromatin remodeling complex has a lower ATP hydrolysis rate than the ACF-5 ISWI chromatin remodeling complex (PubMed: 28801535). Has a role in sensing the length of DNA which flank nucleosomes, which modulates the nucleosome spacing activity of the ACF-5 ISWI chromatin remodeling complex (PubMed: 17099699). Involved in DNA replication and together with SMARCA5/SNF2H is required for replication of pericentric heterochromatin in S-phase (PubMed: 12434153). May have a role in nuclear receptor-mediated transcription repression (PubMed: 17519354).
Cellular Location	Nucleus. Note=Localizes to pericentric heterochromatin (By similarity). May target the CHRAC complex to heterochromatin (PubMed:10880450). Localizes to sites of DNA damage (PubMed:25593309). {ECO:0000250 UniProtKB:O88379, ECO:0000269 PubMed:10880450, ECO:0000269 PubMed:25593309}
Tissue Location	Highly expressed in testis and at low or undetectable levels in other tissues analyzed

Background

Component of the ACF complex, an ATP-dependent chromatin remodeling complex, that regulates spacing of nucleosomes using ATP to generate evenly spaced nucleosomes along the chromatin. The ATPase activity of the complex is regulated by the length of flanking DNA. Also involved in facilitating the DNA replication process. BAZ1A is the accessory, non-catalytic subunit of the complex which can enhance and direct the process provided by the ATPase subunit, SMARCA5, probably through targeting pericentromeric heterochromatin in late S phase. Moves end-positioned nucleosomes to a predominantly central position. May have a role in nuclear receptor-mediated transcription repression.

Component of the histone-fold protein complex CHRAC complex which facilitates nucleosome sliding by the ACF complex and enhances ACF-mediated chromatin assembly. The C-terminal regions of both CHRAC1 and POLE1 are required for these functions.

Images



Tissue/cell: rat testis tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-ACF1 Polyclonal Antibody, Unconjugated(AP58451) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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