For Research Use Only

CHAF1A Polyclonal antibody

Catalog Number:17037-1-AP Featured Product 7 Publications

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Basic Information

Catalog Number:
17037-1-AP

Size:
150ul , Concentration: 600 ug/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG10536

GenBank Accession Number:
BC067093

GeneID (NCBI):
10036

UNIPROT ID:
Q13111

Full Name:
chromatin assembly factor 1, subunit A (p150)

Calculated MW:
956 aa, 107 kDa

Observed MW:
150 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:4000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:20-1:200

Applications

Tested Applications:
WB, IP, IHC, ELISA

Cited Applications:
WB, IF, IHC, ChIP

Species Specificity:
human, mouse

Cited Species:
human, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : Jurkat cells, HeLa cells

IP : Jurkat cells,

IHC : human cervix tissue,

Background Information

Chromatin assembly factor 1 (CAF1) is the only histone chaperone known to assemble histones H3 and H4 onto newly synthesized DNA both in vitro and in vivo [PMID:17065558]. The 938 amino acid multidomain p150 (CHAF1A) binds via its C-terminal third to p60, which is an essential step for nucleosome assembly because knocking down either subunit disrupts the activity [PMID:14519857]. In addition, CAF1 facilitates DNA synthesis depending on the binding of the N-terminal 31 residues of p150 to the proliferating cell nuclear antigen (PCNA), which acts as a sliding clamp to stimulate the processivity of DNA polymerase [PMID:10648606]. CHAF1A regulates the formation of heterochromatin in mammalian cells during replication and in plants it maintains the transcription of certain subsets of genes. Furthermore, CHAF1A exists in a chromatin-remodeling complex WINAC, which coactivates ligand-induced transactivation function of the vitamin D receptor [PMID:12837248]. CHAF1A protein exists some phosphorylation sites, which may affect its theoretical molecular weight when tested.And a 150 kDa band was recognized (PMID:27445493).

Notable Publications

Author	Pubmed ID	Journal	Application
Nasim A Begum	22843687	J Biol Chem	WB
Takashi Ishiuchi	33169018	Nat Struct Mol Biol	WB
Xiancai Ma	33739466	EMBO J	ChIP

Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
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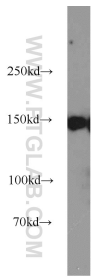
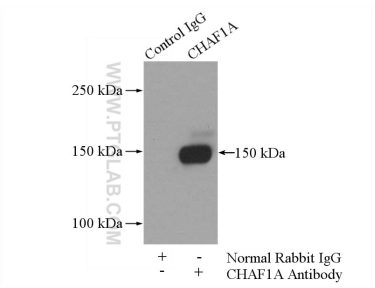
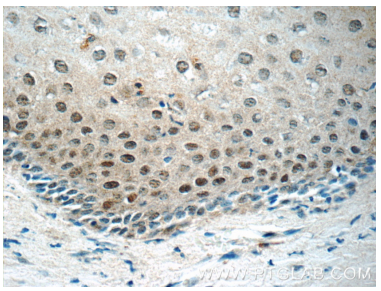
Selected Validation Data



Jurkat cells were subjected to SDS PAGE followed by western blot with 17037-1-AP (CHAF1A antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



IP result of anti-CHAF1A (IP:17037-1-AP, 4ug; Detection:17037-1-AP 1:1000) with Jurkat cells lysate 2400ug.



Immunohistochemical analysis of paraffin-embedded human cervix tissue slide using 17037-1-AP (CHAF1A Antibody) at dilution of 1:50 (under 40x lens).