

For Research Use Only

# CTCF Polyclonal antibody

Catalog Number: 30428-1-AP



## Basic Information

### Catalog Number:

30428-1-AP

### Size:

150ul, Concentration: 700 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG32417

### GenBank Accession Number:

BC014267

### GeneID (NCBI):

10664

### UNIPROT ID:

P49711

### Full Name:

CCCTC-binding factor (zinc finger protein)

### Calculated MW:

83 kDa

### Observed MW:

110-150 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:2000-1:16000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:400-1:1600

IF/ICC 1:800-1:3200

## Applications

### Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

### Species Specificity:

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: HEK-293 cells, MCF-7 cells, RAW 264.7 cells

IP: MCF-7 cells,

IHC: mouse lung tissue,

IF/ICC: HepG2 cells,

## Background Information

Transcriptional insulators are DNA elements that set boundaries on the actions of enhancer and silencer elements and thereby organize the eukaryotic genome into regulatory domains. All vertebrate insulators appear to use the versatile CTCF protein. CTCF uses various combinations of its 11 zinc fingers to recognize a variety of unrelated DNA sequences. Once bound to DNA, CTCF can function as a transcriptional insulator, repressor, or activator, depending on the context of the binding site [PMID:12787766,15454938]. In vertebrates, this 11 zinc-finger protein is shown to be crucial in processes of epigenetic imprinting, X chromosome inactivation, and associated with various complex human diseases including cancer and diabetes [PMID:23139640]. The calculated molecular weight of CTCF is 83 kDa, but stimulation of human corneal epithelial cells with hypoxic stress suppressed a high molecular mass form of CTCF (150 kDa), but not a lower molecular weight form of CTCF (130 kDa) [PMID: 22354964], and there are multiple isoforms of CTCF with molecular masses of 55, 70, 73, 80, 97, and 130 kDa have been observed [PMID: 12878173].

## 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

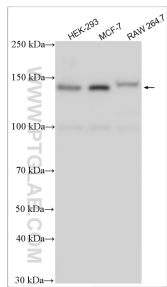
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

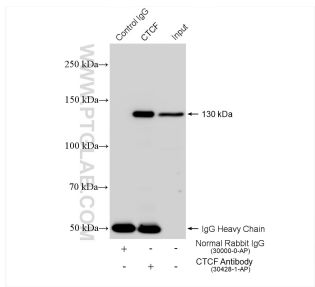
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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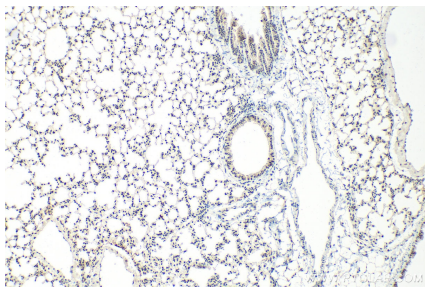
Selected Validation Data



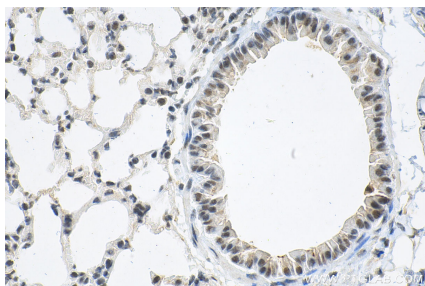
Various lysates were subjected to SDS PAGE followed by western blot with 30428-1-AP (CTCF antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



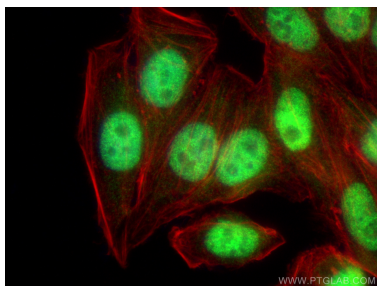
IP result of anti-CTCF (IP:30428-1-AP, 4ug; Detection:30428-1-AP 1:8000) with MCF-7 cells lysate 1880 ug.



Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 30428-1-AP (CTCF antibody) at dilution of 1:800 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse lung tissue slide using 30428-1-AP (CTCF antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CTCF antibody (30428-1-AP) at dilution of 1:1600 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).