

For Research Use Only

# CBX5 Polyclonal antibody

Catalog Number: 11831-1-AP

Featured Product

8 Publications



## Basic Information

### Catalog Number:

11831-1-AP

### Size:

150ul, Concentration: 900 ug/ml by Nanodrop and 433 ug/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG2403

### GenBank Accession Number:

BC006821

### GeneID (NCBI):

23468

### UNIPROT ID:

P45973

### Full Name:

chromobox homolog 5 (HP1 alpha homolog, Drosophila)

### Calculated MW:

191 aa, 22 kDa

### Observed MW:

25-30 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:500-1:1000

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

IHC 1:50-1:500

## Applications

### Tested Applications:

WB, IP, IHC, ELISA

### Cited Applications:

WB, IP, ChIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse

### Positive Controls:

WB: HeLa cells, human kidney tissue, K-562 cells, A431 cells, MCF-7 cells, HEK-293 cells

IP: HEK-293 cells,

IHC: human lung cancer tissue,

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

## Background Information

Chromobox protein homolog 5 (CBX5), also named heterochromatin protein 1 alpha (HP1a), is a highly conserved nonhistone protein involved in heterochromatin formation and gene silencing in different species including humans. HP1a is a Component of heterochromatin that recognizes and binds histone H3 tails methylated at 'Lys-9' (H3K9me), leading to epigenetic repression. In contrast, it is excluded from chromatin when 'Tyr-41' of histone H3 is phosphorylated (H3Y41ph). It may interact with lamin-Breceptor. HP1a is involved in the formation of functional kinetochore through interaction with MIS12 complex proteins. Phosphorylation of HP1 and LBR during interphase mitosis may be responsible for some of the alterations in chromatin organization and nuclear structure which occur at various times during the cell cycle. The HP1a was expressed in nucleus and associates specifically with chromatin during metaphase and anaphase. Recent studies have shown that HP1a is present at many euchromatic sites and positively regulates euchromatic gene expression through RNA transcript association and interaction with hnRNPs in Drosophila (19798443). This antibody is a rabbit polyclonal antibody raised against a full-length human HP1A protein, and can react with the 28kd HP1A protein.

## Notable Publications

Author	Pubmed ID	Journal	Application
Ousman Tamgue	28952292	Asian Pac J Cancer Prev	WB
Guang Yang	28361889	Nat Commun	WB
Ruyi Fan	36629433	Microbiol Spectr	WB

## 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

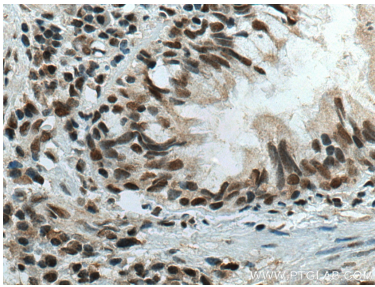
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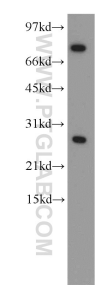
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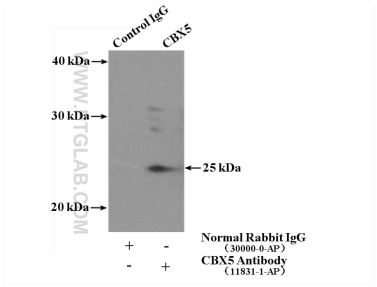
Selected Validation Data



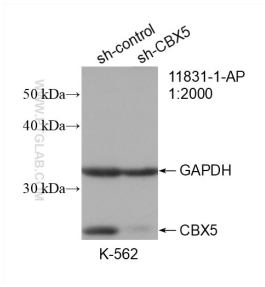
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 11831-1-AP (CBX5 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



HeLa cells were subjected to SDS PAGE followed by western blot with 11831-1-AP (CBX5 antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours.



IP result of anti-CBX5 (IP:11831-1-AP, 4ug; Detection:11831-1-AP 1:500) with HEK-293 cells lysate 1120ug.



WB result of CBX5 antibody (11831-1-AP; 1:2000; incubated at room temperature for 1.5 hours) with sh-Control and sh-CBX5 transfected K-562 cells.