Anti-HP1 alpha Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R014765

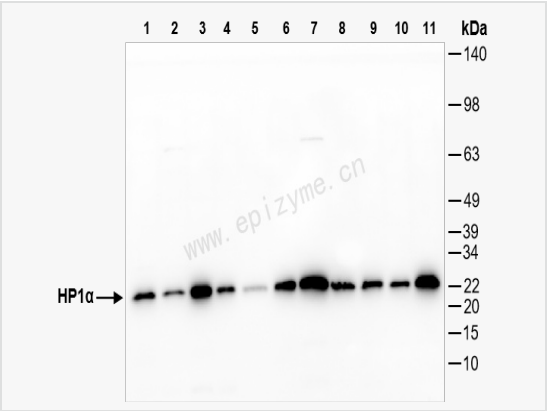
Product Information

Application	ELISA, WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; IHC-P 1:400~1:2,000; IF 1:200~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	41D96H95
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human HP1 alpha
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-HP1 alpha Rabbit mAb [41D96H95] is for research use only and not for use in diagnostic or therapeutic procedures.

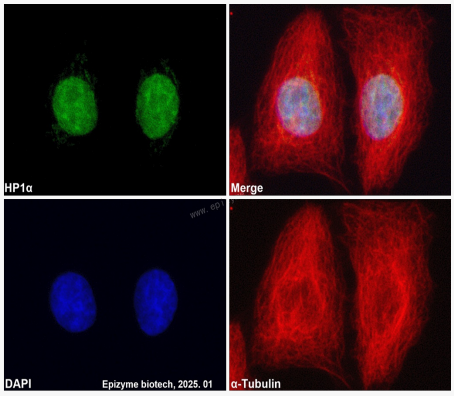
Protein Information

Synonyms	Antigen p25, CBX5, CBX5_HUMAN, CG8409, Chromobox 5, Chromobox homolog 5 (HP1 alpha homolog, Drosophila), Chromobox homolog 5, Chromobox protein homolog 5, Epididymis luminal protein 25, HEL25, Heterochromatin protein 1 alpha, Heterochromatin protein 1, Heterochromatin protein 1 homolog alpha, HP1 alpha, HP1 alpha homolog, HP1, HP1A, HP1Hs alpha, Su(var)205.
Calculated MW	Calculated MW: 22 kDa; Observed MW: 22 kDa
Uniprot ID	P45973
Gene ID	23468
Background	This gene encodes a highly conserved nonhistone protein, which is a member of the heterochromatin protein family. The protein is enriched in the heterochromatin and associated with centromeres. The protein has a single N-terminal chromodomain which can bind to histone proteins via methylated lysine residues, and a C-terminal chromo shadow-domain (CSD) which is responsible for the homodimerization and interaction with a number of chromatin-associated nonhistone proteins. The encoded product is involved in the formation of functional kinetochore through interaction with essential kinetochore proteins. The gene has a pseudogene located on chromosome 3. Multiple alternatively spliced variants, encoding the same protein, have been identified. [provided by RefSeq, Jul 2008]
Cellular Location	Nucleus. Chromosome. Chromosome > centromere. Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase.

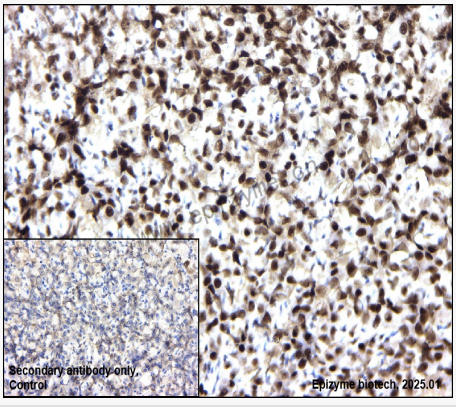
Validation Images



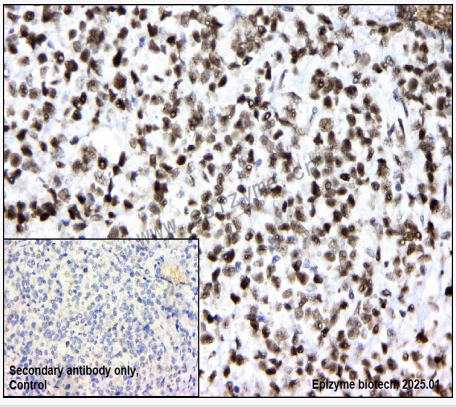
Western Blot - Anti-HP1 alpha Rabbit mAb [41D96H95]
All lanes: R014765 at 1:3,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: U2OS (Human osteosarcoma epithelial cell) whole cell lysates
Lane 5: T24 (Human bladder cancer epithelial cell) whole cell lysates
Lane 6: Jurkat (Human T lymphocytic leukemia cell) whole cell lysates
Lane 7: 293T (Human embryonic kidney cell) whole cell lysates
Lane 8: SCC-9 (Human tongue squamous carcinoma epithelial cell) whole cell lysates
Lane 9: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lane10: Raw264.7 (Mouse mononuclear macrophage leukemia cell) whole cell lysates
Lane11: PC-12 (Rat adrenal pheochromocytoma epithelial cell) whole cell lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
Predicted band size: 22 kDa
Observed band size: 22 kDa
Developed using the ECL technique (Cat. No. SQ201).



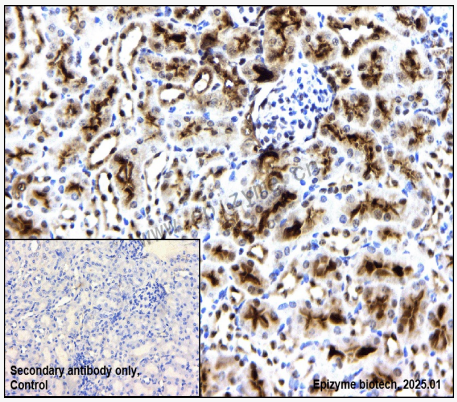
Immunofluorescence - Anti-HP1 alpha Rabbit mAb [41D96H95]
Sample: Hela cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibodies: R014765 at 1:100 dilution and α-tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution
Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)
Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-HP1 alpha Rabbit mAb [41D96H95]
Sample: Paraformaldehyde-fixed, paraffin embedded rat stomach tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R014765 at 1:1,200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-HP1 alpha Rabbit mAb [41D96H95]
Sample: Paraformaldehyde-fixed, paraffin embedded human breast cancer tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R014765 at 1:1,200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-HP1 alpha Rabbit mAb [41D96H95]
Sample: Paraformaldehyde-fixed, paraffin embedded mouse kidney tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R014765 at 1:1,200 dilution
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.