

Rabbit HP1 alpha Polyclonal Antibody | anti-HP1alpha antibody

Phospho-HP1 alpha (Ser92) Antibody

CATALOG # AAA31332	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, ELISA
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PRODUCT SYNONYMS

HP1 alpha; Polyclonal Antibody; Phospho-HP1 alpha (Ser92) Antibody; 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 homolog; HP1; HP1A; HP1Hs alpha; Su (var)205; anti-HP1alpha antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-HP1 alpha (Ser92) Antibody detects endogenous levels of HP1 alpha only when phosphorylated at Ser92.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-HP1alpha antibody	IHC (Immunohistochemistry), ELISA (Peptide ELISA)
Application Notes	IHC: 1:50-1:200 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human HP1 alpha around the phosphorylation site of Ser92.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylation of HP1 and LBR may be responsible for some of the alterations in chromatin organization and nuclear structure which occur at various times during the cell cycle (By similarity). Phosphorylated during interphase and possibly hyper-phosphorylated during mitosis. Ubiquitinated.
Subunit Structure	Interacts with KMT5B and KMT5C (By similarity). Interacts with HP1BP3. Interacts directly with ATRX, CHAF1A, LBR, NIPBL, SP100, STAM2 and TRIM28 via the chromoshadow domain. Can interact directly with CBX3 via the chromoshadow domain. Interacts with histone H3 methylated at 'Lys-9'. Interacts with BAHD1, MIS12 and DSN1. Interacts with POGZ; POGZ and PXVXL motif-containing proteins such as INCENP and TRIM28 compete for interaction with CBX5. Interacts with INCENP and TRIM24. Interacts with CHAMP1. Interacts with PRR14 (via N-terminus). Interacts with RRP1B. Interacts with HNRNPU (via C-terminus); this interaction is, at least in part, RNA-dependent. Interacts with LRIF1 (via PxVxL motif). (Microbial infection) Interacts with JC virus agnoprotein; this interaction induces the dissociation of CBX5 from LBR, resulting in destabilization of the nuclear envelope.
Subcellular Location	Nucleus. Chromosome. Chromosome>Centromere. Note: Colocalizes with HNRNPU in the nucleus (PubMed:19617346). Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase.

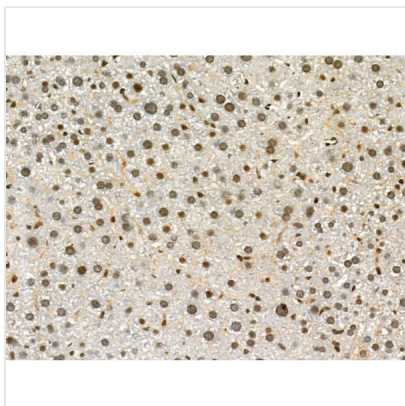
IMAGES

**IHC (Immunohistochemistry)**

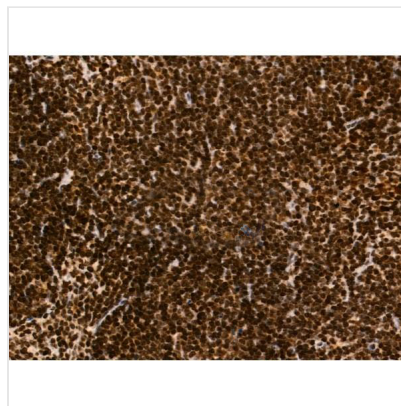
At 1/100 staining Human colorectal cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

**IHC (Immunohistochemistry)**

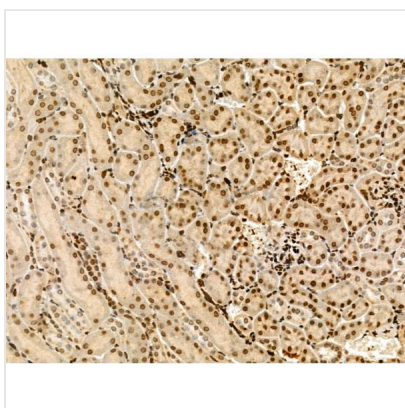
At 1/100 staining Mouse heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

**IHC (Immunohistochemistry)**

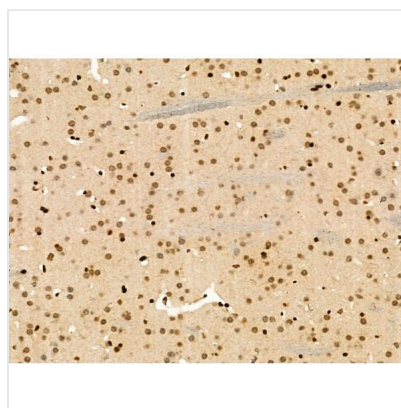
At 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

**IHC (Immunohistochemistry)**

At 1/100 staining Mouse spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

**IHC (Immunohistochemistry)**

At 1/100 staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

**IHC (Immunohistochemistry)**

At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-HP1alpha antibody	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). Can interact with lamin-B receptor (LBR). This interaction can contribute to the association of the heterochromatin with the inner nuclear membrane. Involved in the formation of functional kinetochore through interaction with MIS12 complex proteins.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	188035908
NCBI GeneID	23468
NCBI Accession #	NP_001120793.1
NCBI GenBank Nucleotide #	NM_001127321.1
UniProt Accession #	P45973; B2R8T9
Molecular Weight	22,225 Da
NCBI Official Full Name	chromobox protein homolog 5
NCBI Official Synonym Full Names	chromobox homolog 5
NCBI Official Symbol	CBX5
NCBI Official Synonym Symbols	HP1; HP1A
NCBI Protein Information	chromobox protein homolog 5; HP1-ALPHA; HP1Hs alpha; antigen p25; HP1 alpha homolog; heterochromatin protein 1-alpha; heterochromatin protein 1 homolog alpha; chromobox homolog 5 (HP1 alpha homolog, Drosophila)
UniProt Protein Name	Chromobox protein homolog 5
UniProt Gene Name	CBX5
UniProt Synonym Gene Names	HP1A; HP1 alpha
UniProt Entry Name	CBX5_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.