

**HP1 alpha Antibody**  
**Purified Mouse Monoclonal Antibody (Mab)**  
**Catalog # AP53281**

**Specification**

**HP1 alpha Antibody - Product Information**

Application	WB, ICC, IHC
Primary Accession	<a href="#">P45973</a>
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	26 KDa

**HP1 alpha Antibody - Additional Information**

**Gene ID** 23468

**Other Names**

Antigen p25;Cbx 5;Cbx5;CBX5\_HUMAN;CG8409;Chromobox homolog 5 (Drosophila HP1 alpha); Chromobox homolog 5 (HP1 alpha homolog Drosophila); Chromobox homolog 5 (HP1 alpha homolog, Drosophila); Chromobox homolog 5; Chromobox protein homolog 5; Chromobox protein homologue 5; Heterochromatin protein 1 alpha; Heterochromatin protein 1; Heterochromatin protein 1 homolog alpha; HP 1; HP 1A; HP1 alpha; HP1 alpha homolog; HP1; HP1A; HP1Hs alpha; Su(var)205.

**Dilution**

WB~~1:1000  
ICC~~1:300  
IHC~~1:100

**Format**

Purified mouse monoclonal antibody in buffer containing 0.1M Tris-Glycine (pH 7.4, 150 mM NaCl) with 0.09% (W/V) sodium azide, 50%,glycerol

**Storage**

Store at -20 °C.Stable for 12 months from date of receipt

**HP1 alpha Antibody - Protein Information**

**Name** CBX5

**Synonyms** HP1A

**Function**

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) (PubMed:<a

href="http://www.uniprot.org/citations/19783980" target="\_blank">>19783980</a>). May contribute to the association of heterochromatin with the inner nuclear membrane by interactions with the lamin-B receptor (LBR) (PubMed:<a href="http://www.uniprot.org/citations/19783980" target="\_blank">>19783980</a>). Involved in the formation of kinetochore through interaction with the MIS12 complex subunit NSL1 (PubMed:<a href="http://www.uniprot.org/citations/19783980" target="\_blank">>19783980</a>, PubMed:<a href="http://www.uniprot.org/citations/20231385" target="\_blank">>20231385</a>). Required for the formation of the inner centromere (PubMed:<a href="http://www.uniprot.org/citations/20231385" target="\_blank">>20231385</a>).

### Cellular Location

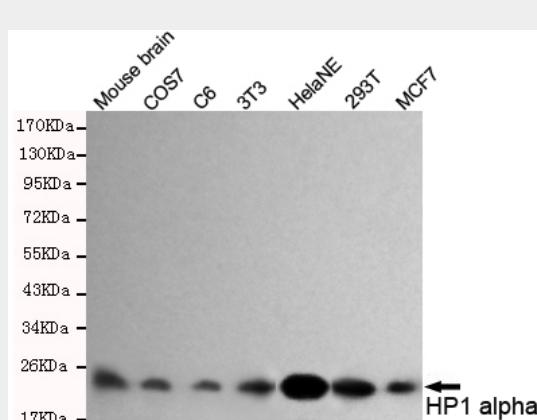
Nucleus. Chromosome. Chromosome, centromere. Note=Colocalizes with HNRNPU in the nucleus (PubMed:19617346). Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase (PubMed:19617346). Localizes to sites of DNA damage (PubMed:28977666)

### HP1 alpha Antibody - Protocols

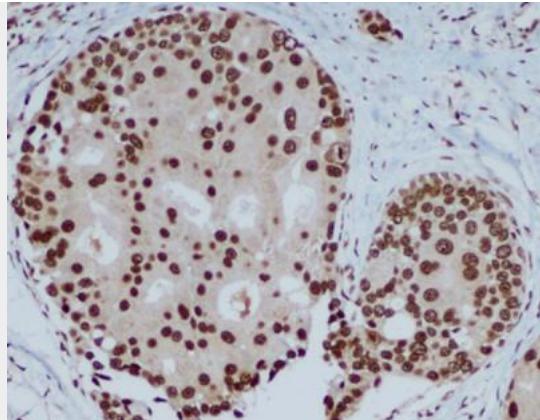
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

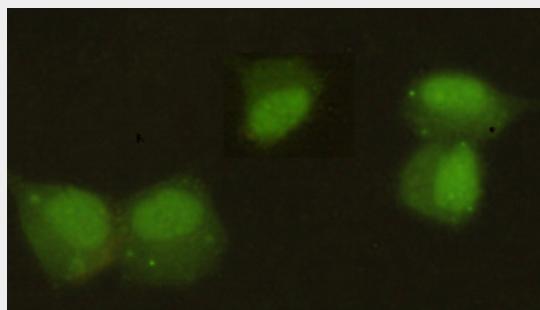
### HP1 alpha Antibody - Images



Western blot detection of HP1 alpha in MCF7,293T,HeLaNE,3T3,C6,COS7 and Mouse brain lysates and using HP1 alpha mouse mAb (1:1000 diluted).Predicted band size: 22KD. Observed band size: 22KD



Immunohistochemical analysis of paraffin-embedded human breast carcinoma with HP1 alpha mouse mAb (3G2-H10-A6, 1:400 diluted ),showing nuclear localization.A high pressure mediated antigen retrieval step was performed in citrat buffer(pH6.0).



Immunocytochemistry stain of HeLa using HP1 alpha mouse mAb (1:300).

#### **HP1 alpha Antibody - Background**

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.

#### **HP1 alpha Antibody - References**

- Saunders W.S.,et al.J. Cell Sci. 104:573-582(1993).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.  
Ye Q.,et al.J. Biol. Chem. 271:14653-14656(1996).  
Lubec G.,et al.Submitted (DEC-2008) to UniProtKB.