

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

HP1 alpha Antibody - Product Information

Application	WB, ICC, IHC
Primary Accession	P45973
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

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.

Storage

Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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:19783980). May

contribute to the association of heterochromatin with the inner nuclear membrane by interactions with the lamin-B receptor (LBR) (PubMed:19783980). Involved in the formation of kinetochore through interaction with the MIS12 complex subunit NSL1 (PubMed:19783980, PubMed:20231385). Required for the formation of the inner centromere (PubMed:20231385).

Cellular Location

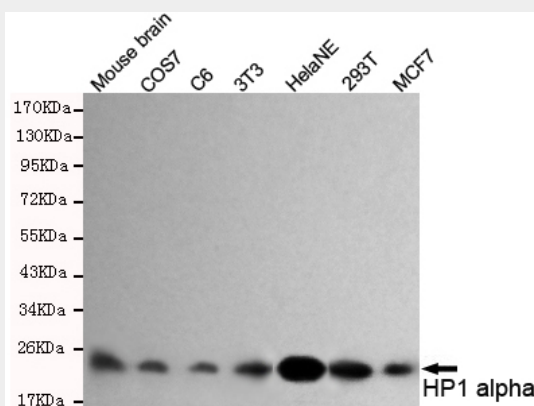
Nucleus. Chromosome. Chromosome, centromere. Note=Colocalizes with HNRNPU in the nucleus (PubMed:19617346). Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase (PubMed:19617346).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

HP1 alpha Antibody - Protocols

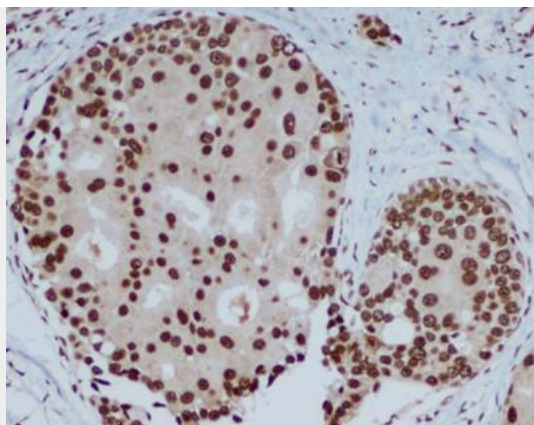
Provided below are standard protocols that you may find useful for product applications.

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

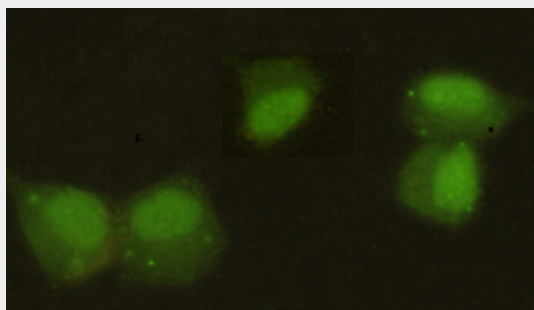
HP1 alpha Antibody - Images



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: 22KDa.Observed band size: 22KDa



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.