



Rabbit Anti-HP1 alpha antibody

SL3825R

Product Name:	HP1 alpha
Chinese Name:	异染色质蛋白1- α 抗体
Alias:	Antigen p25; HP1- α ; CBX5; CBX5_HUMAN; Chromobox homolog 5 (HP1 alpha homolog, Drosophila); Chromobox homolog 5; Chromobox protein homolog 5; Heterochromatin protein 1 alpha; Heterochromatin protein 1; Heterochromatin protein 1 homolog alpha; HP1 alpha; HP1 alpha homolog; HP1; HP1A; HP1Hs alpha.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	22kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human HP1 alpha:51-150/190
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	HP1 alpha is a component of heterochromatin. It recognizes and binds histone H3 tails methylated at Lys-9, leading to epigenetic repression. HP1 alpha may interact with lamin B receptor (LBR). This interaction can contribute to the association of the heterochromatin with the inner nuclear membrane.

HP1 proteins are relatively small proteins (~25 kDa) with a conserved amino-terminal chromo domain and a structurally related carboxy-terminal motif, the chromo shadow domain. Both domains of HP1 are required for binding to native chromatin in vivo, but they contribute differentially to binding in euchromatin and heterochromatin.

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). 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.

Subunit:

Interacts with SUV420H1 and SUV420H2. 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 JC virus agnoprotein; this interaction induces the dissociation of CBX5 from LBR, resulting in destabilization of the nuclear envelope. Interacts with CHAMP1. Interacts with ASXL1.

Subcellular Location:

Nucleus. Chromosome. Chromosome, centromere. Note=Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase.

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. Phosphorylated during interphase and possibly hyper-phosphorylated during mitosis.

Ubiquitinated.

Similarity:

Contains 2 chromo domains.

SWISS:

P45973

Gene ID:

23468

Database links:

[Entrez Gene: 538885](#)Cow

[Entrez Gene: 477593](#)Dog

[Entrez Gene: 23468](#)Human

[Entrez Gene: 12419](#)Mouse

[Entrez Gene: 300266](#)Rat

[Omim: 604478](#)Human

[SwissProt: P45973](#)Human

[SwissProt: Q61686](#)Mouse

[Unigene: 349283](#)Human

[Unigene: 262059](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

HP1是组蛋白赖氨酸甲基转移酶的一种,参与催化组蛋白甲基化反应,主要作用位点是:H3K9Me2和H3K9Me3。