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Anti-HP1 alpha Antibody

Catalog # AP95721

Product Information

Application	WB, FC, IF/IC
Primary Accession	P45973
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Calculated MW	22225

Additional Information

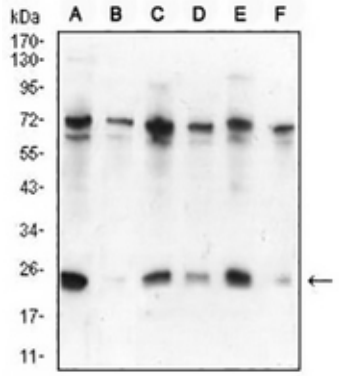
Gene ID	23468
Other Names	HP1A; Chromobox protein homolog 5; Antigen p25; Heterochromatin protein 1 homolog alpha; HP1 alpha
Target/Specificity	Recombinant fusion protein of human HP1 alpha expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

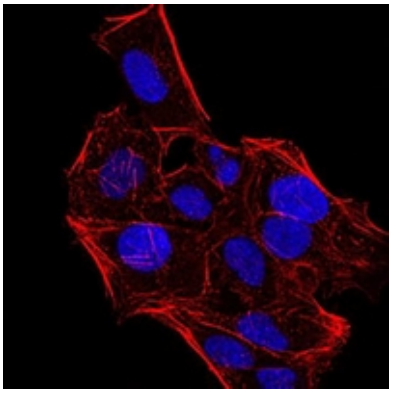
Name	CBX5
Synonyms	HP1A
Function	Component of heterochromatin that recognizes and binds histone H3 tails methylated at 'Lys-9' (H3K9me), leading to epigenetic repression (PubMed:40440427). In contrast, it is excluded from chromatin when 'Tyr-41' of histone H3 is phosphorylated (H3Y41ph) (PubMed:19783980). Also recognizes and binds histone H1.4 methylated at 'Lys-26' (H1.4K26me) (PubMed:16127177). Excluded from chromatin when histone H1.4 is Simultaneously methylated at Lys-26 (H1.4K26me) and phosphorylated at Ser-27 (H1.4S27Ph) (PubMed:16127177). 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 (PubMed:40440427). Associates specifically with chromatin during metaphase and anaphase (PubMed:19617346). Localizes to sites of DNA damage (PubMed:28977666).

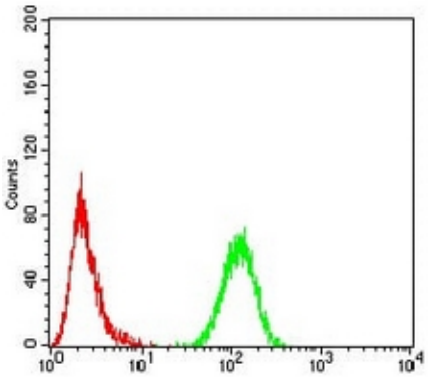
Images



Western blot analysis of HP1 alpha expression in Hela (A), NIH/3T3 (B), K562 (C), MCF7 (D), Jurkat (E), A431 (F) whole cell lysates. (Predicted band size: 22 kD; Observed band size: 24 kD)



Immunofluorescent analysis of HP1 alpha staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-HP1 alpha Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.