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HP-1α mouse Monoclonal Antibody(5E3)

Catalog # AP63830

Product Information

Application	IF, ICC, WB, IHC-P
Primary Accession	P45973
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Calculated MW	22225

Additional Information

Gene ID	23468
Other Names	Chromobox protein homolog 5 (Antigen p25) (Heterochromatin protein 1 homolog alpha) (HP1 alpha)
Dilution	IF~~IF: 1:50-200 WB 1:500-2000,IHC-p 1:50-300 ICC~~N/A WB~~IF: 1:50-200 WB 1:500-2000,IHC-p 1:50-300 IHC-P~~IF: 1:50-200 WB 1:500-2000,IHC-p 1:50-300
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

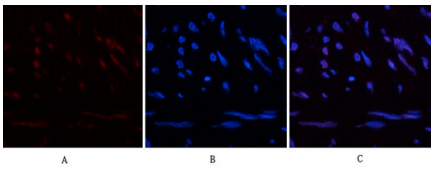
Name	CBX5
Synonyms	HP1A
Function	Component of heterochromatin that recognizes and binds histone H3 tails methylated at 'Lys-9' (H3K9me), leading to epigenetic repression (PubMed:40440427). In contrast, it is excluded from chromatin when 'Tyr-41' of histone H3 is phosphorylated (H3Y41ph) (PubMed:19783980). 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).

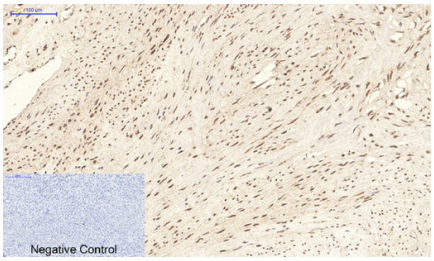
Background

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.

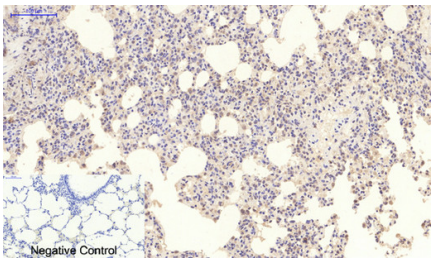
Images



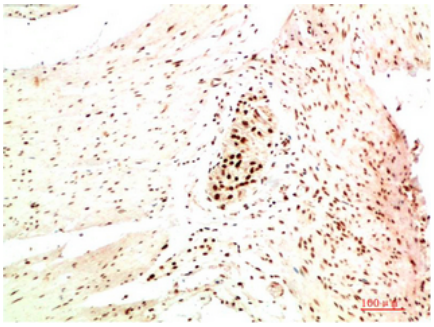
Immunofluorescence analysis of human-uterus tissue. 1,HP-1α Mouse Monoclonal Antibody(5E3)(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1,HP-1α Mouse Monoclonal Antibody(5E3) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.

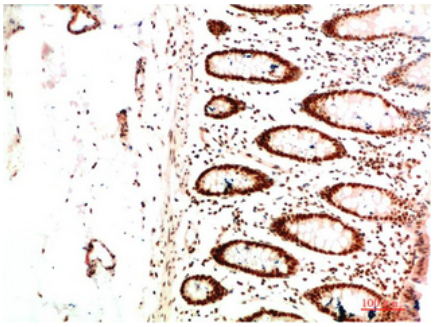


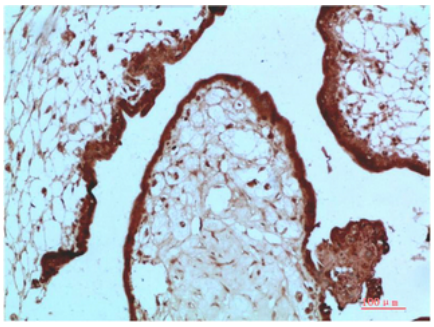
Immunohistochemical analysis of paraffin-embedded Rat-lung tissue. 1,HP-1α Mouse Monoclonal Antibody(5E3) was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



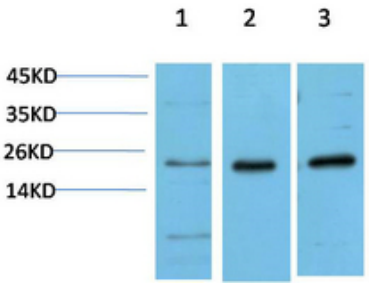
Immunohistochemical analysis of paraffin-embedded Human Colon Carcinoma Tissue using HP-1 α Mouse mAb diluted at 1:200

Immunohistochemical analysis of paraffin-embedded Human Colon Carcinoma Tissue using HP-1 α Mouse mAb diluted at 1:200





Immunohistochemical analysis of paraffin-embedded Human Placenta Tissue using HP-1 α Mouse mAb diluted at 1:200



Western blot analysis of 1) Hela Cell Lysate, 2)3T3 Cell Lysate, 3) PC12 Cell Lysate using HP-1γα Mouse mAb diluted at 1:1000.

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