

Anti-HP1 gamma Rabbit Monoclonal Antibody

Catalog # ABO14459

Product Information

Application	WB, IHC, IP, FC
Primary Accession	Q13185
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-HP1 gamma Rabbit Monoclonal Antibody . Tested in WB, IHC, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	11335
Other Names	Chromobox protein homolog 3, HECH, Heterochromatin protein 1 homolog gamma, HP1 gamma, Modifier 2 protein, CBX3
Calculated MW	20811
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 IP 1:50 FC 1:100
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ACGB-3
Immunogen	A synthesized peptide derived from human HP1 gamma
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	CBX3
Function	Component of heterochromatin, which recognizes and binds histone H3 tails methylated at 'Lys-9', leading to epigenetic repression (PubMed: 11242053).

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](#)). Involved in the formation of functional kinetochore through interaction with MIS12 complex proteins (PubMed:[15502821](#)). Contributes to the conversion of local chromatin to a heterochromatin-like repressive state through H3 'Lys-9' trimethylation, mediates the recruitment of the methyltransferases SUV39H1 and/or SUV39H2 by the PER complex to the E-box elements of the circadian target genes such as PER2 itself or PER1 (By similarity). Mediates the recruitment of NIPBL to sites of DNA damage at double-strand breaks (DSBs) (PubMed:[28167679](#)).

Cellular Location

Nucleus. Note=Associates with euchromatin and is largely excluded from constitutive heterochromatin. May be associated with microtubules and mitotic poles during mitosis (Potential).

Images

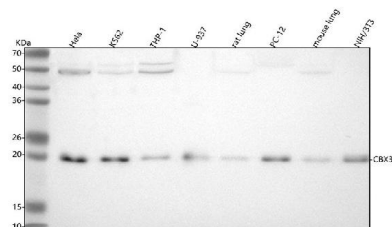


Figure 1. Western blot analysis of HP1 Gamma using anti-HP1 Gamma antibody (M01142-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
 Lane 2: human K562 whole cell lysates,
 Lane 3: human THP-1 whole cell lysates,
 Lane 4: human U-937 whole cell lysates,
 Lane 5: rat lung tissue lysates,
 Lane 6: rat PC-12 whole cell lysates,
 Lane 7: mouse lung tissue lysates,
 Lane 8: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HP1 Gamma antigen affinity purified monoclonal antibody (Catalog # M01142-1) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HP1 Gamma at approximately 21 kDa. The expected band size for HP1 Gamma is at 21 kDa.

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