

# HP1 $\alpha$ , $\beta$ , $\gamma$ Antibody

**ALTERNATE NAMES:** CBX5, 1, 3

**CATALOG #:** 6861-25

**AMOUNT:** 25  $\mu$ g

**HOST/ISOTYPE:** Rabbit

**IMMUNOGEN:** Polyclonal antibody raised in rabbit against human HP1  $\beta$  (Heterochromatin protein 1 homolog beta), using the full length recombinant GST tagged protein. The antibody also recognizes the  $\alpha$  and  $\gamma$  isoforms.

**FORM:** Liquid

**FORMULATION:** In PBS with 0.05% (W/V) sodium azide and 0.05% ProClin 300.

**PURIFICATION:** Protein G purified

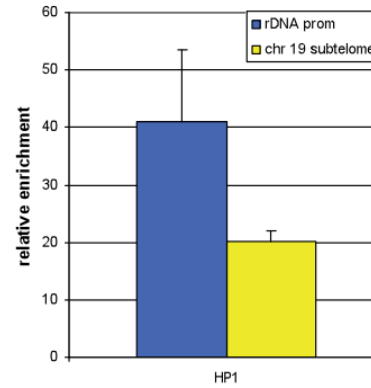
**SPECIES REACTIVITY:** Human, mouse.

**STORAGE CONDITIONS:** Store at -20°C; for long storage, store at -80°C. Avoid multiple freeze-thaw cycles.

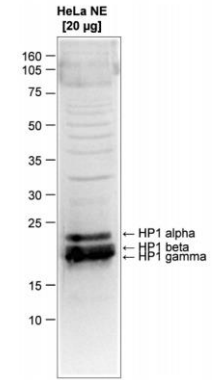
**DESCRIPTION:** HP1 alpha, beta and gamma are components of heterochromatin. They recognize and bind histone H3 tails methylated at 'Lys-9', leading to epigenetic repression of transcription. HP1 alpha, beta and gamma also interact with lamin B receptor (LBR), thereby contributing to the association of heterochromatin with the inner nuclear membrane.

**APPLICATION:** Western Blot: 1:1000, IF: 1:500, ChIP: 4  $\mu$ g/ChIP

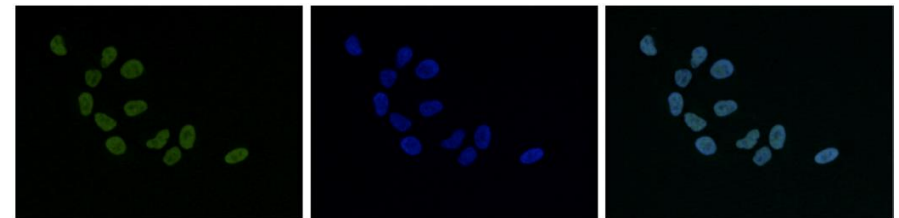
**Note:** This information is only intended as a guide. The optimal dilutions must be determined by the user.



ChIP assays were performed using NIH3T3 cells and 4  $\mu$ g of the antibody. QPCR was performed on the IP'd DNA with optimized primer sets for the rDNA promoter and for a subtelomeric sequence of chromosome 19. Figure 1 shows the relative enrichment as compared to a no antibody negative control ChIP.



Western blot was performed on HeLa nuclear extracts (20  $\mu$ g) with the antibody diluted 1:1,000 in TBS-Tween containing 5% skimmed milk (Figure 1). The molecular weight marker (in kDa) is shown on the left; the expected location of HP1 $\alpha$ , HP1 $\beta$  and HP1 $\gamma$  is indicated on the right.



HeLa cells were stained with the antibody and with DAPI. Cells were fixed with 4% formaldehyde for 10' and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labelled with the HP1 $\alpha$ ,  $\beta$  and  $\gamma$  antibody (left) diluted 1:500 in blocking solution followed by an anti-rabbit antibody conjugated to Alexa488. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown.

**RELATED PRODUCTS:**

- CBX1 Antibody (Cat. No. 6146-50)
- CBX2 Antibody (Cat. No. 6840-100)
- CBX3 Antibody (Cat. No. 6147-100)
- CBX4 Antibody (Cat. No. 5284-100)
- CBX5 Antibody (Cat. No. 6148-100)

*FOR RESEARCH USE ONLY! Not to be used on humans*

