

## Anti-HP1 $\gamma$ /CBX3 antibody (rabbit), ChIP grade

### BACKGROUND

Heterochromatin protein 1 (HP1) is a major component of heterochromatin which plays a role in assembly of various proteins on chromatin and gene silencing. The HP1 family is evolutionally conserved, with members in fungi, plants and animals but not prokaryotes, and there are multiple members within the same species. The HP1 family proteins are encoded by a class of genes known as the chromobox (CBX) genes. In humans, HP1 $\gamma$  is encoded by the *Chromobox homolog 3* (CBX3) gene. HP1 $\gamma$  has been observed to interact directly or indirectly with several non-histone proteins with a wide variety of functions (Ref 1).

The product is prepared by immunizing rabbit with the synthetic peptide **WHSCPEDEAQ-C** corresponding to the C-terminal sequence of human HP1 $\gamma$  (Ref 2, 3) and purified by affinity purification with the peptide. The antiserum preparation has been directed by Prof. T. Haraguchi.

<b>Product type</b>	Primary antibodies
<b>Host</b>	Rabbit
<b>Source</b>	
<b>Form</b>	Liquid Affinity purified IgG, 0.75 mg/ml in 0.12 M sodium phosphate buffer (pH 7.4), 50% glycerol, filter-sterilized, azide free
<b>Volume</b>	50 $\mu$ g
<b>Concentration</b>	
<b>Specificity</b>	HP1 $\alpha$ /CBX5
<b>Antigen</b>	synthetic peptide CEDAENKEKETAKS corresponding to the amino acid sequence 179-191 of human HP1 $\alpha$
<b>Isotype</b>	IgG

**Application notes** WB, IF, ChIP

### Recommended use

### Recommended dilutions

Western blotting: 1/2,000~1/10,000 (Fig. 2 & Ref. 2)

Immunofluorescence staining: (Ref. 2 & 3)

Chromatin immunoprecipitation (ChIP): (Ref. 3)

Optimal dilutions/concentrations should be determined by the end user.

**Data Link:** UniProtKB/Swiss-Prot [Q13185](#) (CBX3\_HUMAN)

### Staining Pattern

**Cross reactivity** Human and hamster. Expected to react with chicken, Xenopus, Drosophila, and zebra fish orthologs due to the sequence identity of the immunogen.

**Storage** -20°C (long period, -70°C)

### References

(This product was used in references 2 and 3.)

- 1) Lomber G *et al* "The Heterochromatin Protein 1 family" *Genome Biol* 7: 228 Review (2006) PMID: [17224041](#)
- 2) Kametaka A *et al* "Interaction of the chromatin compaction-inducing domain (LR domain) of Ki-67 antigen with HP1 proteins" *Genes Cells* 7: 1231-1242 (2002) PMID: [12485163](#)
- 3) Wang F *et al* "The assembly and maintenance of hetero-chromatin initiated by transgene repeats are independent of the RNA interference pathway in mammalian cells" *Mol Cell Biol* 26: 4028-4040 (2006) PMID: 16705157



**Related Products**

BAM-70-221-EX	Anti-HP1 $\alpha$ antibody
BAM-70-223-EX	Anti-HP1 $\beta$ antibody

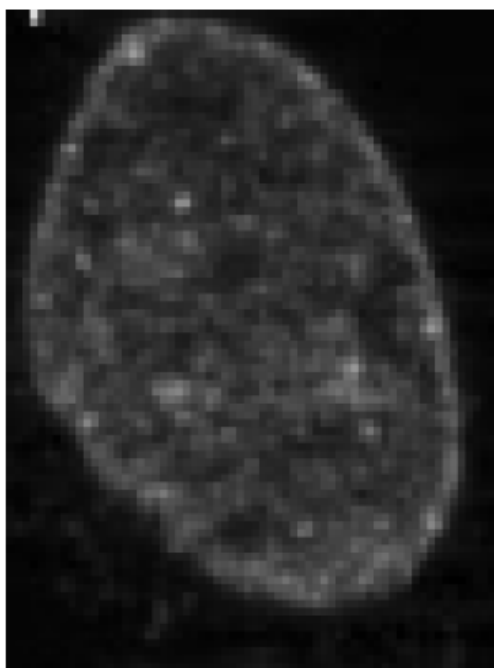


Fig. 1 Immunofluorescent staining of HP1 $\gamma$  in Baby Hamster Kidney cells with this antibody.  
Cells were fixed with para-formaldehyde. The second antibody was Alexa Fluor 594-conjugated goat anti-rabbit IgG antibody.

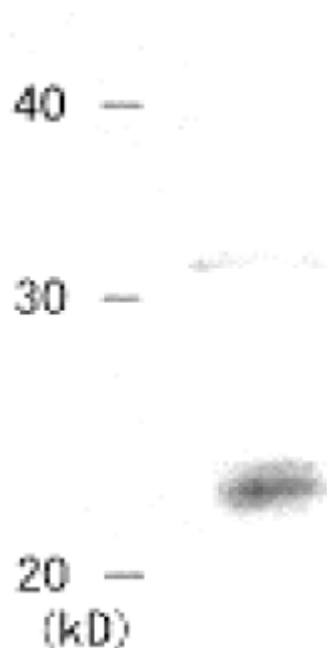


Fig. 2 Identification of HP1 $\gamma$  in crude cell extract by Western blotting with this bantibody.  
Sample: Baby Hamster Kidney cells

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