

Anti-HP1 β /CBX1 antibody (rabbit), ChIP grade

Cat. # 70-223 (50 ug)

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 β is encoded by the Chromobox homolog 1 (CBX1) gene located on chromosome 17q21.32. HP1 β has been observed to interact directly or indirectly with several non-histone proteins with a wide variety of functions (1).

The product is prepared by immunizing rabbit with the synthetic peptide CNEDDDKKDDKN including the C-terminal sequence (176-185) of human HP1 β (3) and purified by affinity purification with the peptide. The antiserum was prepared by the direction of Prof. T. Haraguchi (Ref. 3).

Applications

- 1) Western blotting (1/2,000~1/10,000) (Fig. 2)
- 2) Immunofluorescence staining (Fig1 & Ref. 3)
- 3) Chromatin immunoprecipitation (ChIP) (Ref. 3)

Specifications

Reactivity: Human and hamster. Expected to react with mouse, chicken, zebra fish, Xenopus and Drosophila orthologs due to the sequence identity of the immunogen.

Form: Affinity purified rabbit IgG, 0.44 mg/ml in 0.12 M sodium phosphate buffer (pH 7.4), 50% glycerol, filter-sterilized, azide free

Storage: -20°C (long period, -70°C)

Reference:

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 heterochromatin initiated by transgene repeats are independent of the RNA interference pathway in mammalian cells"
Mol Cell Biol 26: 4028-4040 (2006) PMID: [16705157](#)

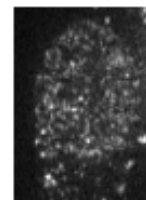


Fig. 1 Immunofluorescence staining of HP1 β in Baby Hamster Kidney cells with this antibody.

Cells were fixed with para-formaldehyde. The second antibody was Alexa Fluor 594-conjugated goat anti-rabbit IgG.

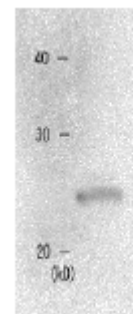


Fig.2 Identification of HP1 β by Western blotting with the antibody in the crude cell extract.

Sample: Extract of MCF7 cells
The antibody was used at 1,000 fold dilution.

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