Anti-HP1γ/CBX3 antibody (rabbit), ChIP grade

70-225　　50 μg

Shipping and Storage: Ship at 4℃ and stored at -20℃.Do not freeze below -20℃

Immunogen: synthetic peptide **WHSCPEDEAQ**-C to the C-terminal sequence of human HP1γ (Ref 2, 3)

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

Applications:

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

Purity: IgG fraction prepared from the rabbit anti-serum with protein A.

Form: 1 mg/ml in PBS- with 50% glycerol, filter sterilized.

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, HP1γ is encoded by the *Chromobox homolog 3* (CBX3) gene. HP1γ has been observed to interact directly or indirectly with several non-histone proteins with a wide variety of functions (Ref 1).

Data Link: UniProtKB/Swiss-Prot Q13185 (CBX3_HUMAN)

Related product:

#70-221 Anti-HP1α antibody,

#70-223 Anti-HP1β antibody

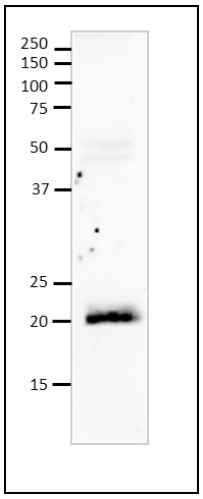

Fig. 1 Western blotting of HeLa whole cell lysate

20μg of Hela whole cell lysate was run on SDS-PAGE (12.5% gel)

anti-HP1 γ antibody was used at 1μg/ml.

Identification of HP1γ in crude cell extract by Western blotting with this antibody.

Second antibody (goat anti-rabbit IgG antibody, HRP-conjugated, ab205718) was used at 1/10,000 dilution.

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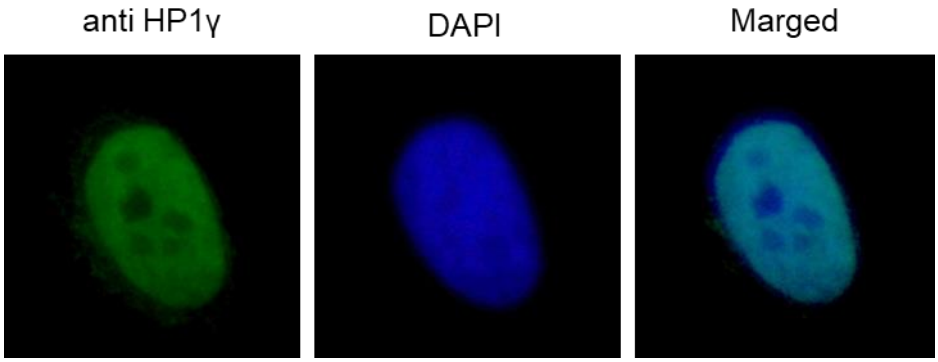

Fig.2 Immunofluorescence staining of RRM2 protein in MCF cells with anti-RRM2 antibody.

HeLa cells were fixed with 4%PFA and permeabilized with 0.25% TritonX 100 and reacted with anti-HP1γ antibody at 1μg/ml. As the second antibody, anti-rabbit IgG antibody conjugated with Alexa Fluor 488 (ab150077, Abcam) was used at 1/1,000 dilution. DNA was stained with 1.0μg/mL DAPI in TBS.

References: This product was described and used in Ref 2 and 3

1. Lomberk 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