Anti-HP1 alpha Antibody [B0-1]

M1211-2



Product Type: Mouse monoclonal IgG1, primary antibodies

Species reactivity: Human, Mouse, Rat

Applications: WB, IF-Cell

Molecular Wt: Predicted band size: 22 kDa

Clone number: B0-1

Description: Chromobox protein homolog 5 is a protein that in humans is encoded by the CBX5 gene. It

is a highly conserved, non-histone protein part of the heterochromatin family. The protein itself is more commonly called (in humans) HP1 α . Heterochromatin protein-1 (HP1) has an N-terminal domain that acts on methylated lysines residues leading to epigenetic repression. The C-terminal of this protein has a chromo shadow-domain (CSD) that is responsible for homodimerizing, as well as interacting with a variety of chromatin-associated, non-histone proteins. HP1 α is a highly evolutionary conserved protein, existing in species such a Schizosaccharomyces pombe, a type of yeast, all the way to humans. The N-terminal chromodomain and C-terminal chromoshadow domain appear to be much more conserved (approximately 50-70% amino acid similarity) than the hinge region (approximately 25-30%

similarity with the Drosophila HP1 homolog).

Immunogen: Recombinant protein within Human HP1 alpha aa 1-191 / 191.

Positive control: HeLa cell lysate, MCF7 cell lysate, NIH/3T3 cell lysate, RAW264.7 cell lysate, C6 cell

lysate, PC-12 cell lysate, MCF7.

Subcellular location: Nucleus

Database links: SwissProt: P45973 Human | Q61686 Mouse

Entrez Gene: 300266 Rat

Recommended Dilutions:

WB 1:1,000 **IF-Cell** 1:500

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 °C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Technical:0086-571-89986345

Service mail:support@huabio.cn



Images

kDa www. 250-150-100-72-55-42-35-25-14-HP1 alpha

Fig1: Western blot analysis of HP1 alpha on different lysates with Mouse anti-HP1 alpha antibody (M1211-2) at 1/1,000 dilution.

Lane 1: HeLa cell lysate (10 µg/Lane) Lane 2: MCF7 cell lysate (10 µg/Lane) Lane 3: NIH/3T3 cell lysate (10 µg/Lane) Lane 4: RAW264.7 cell lysate (10 µg/Lane)

Lane 5: C6 cell lysate (10 µg/Lane) Lane 6: PC-12 cell lysate (10 µg/Lane)

Predicted band size: 22 kDa Observed band size: 22 kDa

Exposure time: 1 minute 40 seconds;

4-20% SDS-PAGE gel.

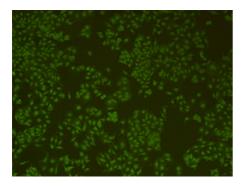


Fig2: Immunofluorescent staining of MCF-7 cells using anti-HP-1 α Mouse mAb (Cat. # M1211-2).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. "Initial characterization of the human central proteome." Burkard T.R., Planyavsky M., Kaupe I., Breitwieser F.P., Buerckstuemmer T., Bennett K.L., Superti-Furga G., Colinge J.BMC Syst. Biol. 5:17-17(2011)
- 2. "Lamin A rod domain mutants target heterochromatin protein 1alpha and beta for proteasomal degradation by activation of F-box protein, FBXW10." Chaturvedi P., Parnaik V.K.PLoS ONE 5:E10620-E10620(2010)

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