SANTA CRUZ BIOTECHNOLOGY, INC.

HP1β (C-15): sc-10212

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chromatin assembly factor-1 (CAF-1) is a multisubunit protein complex that comprises three polypeptide subunits known as p150, p60, and p48. CAF-1 is a nucleosome assembly factor that deposits newly synthesized and acetylated Histones H3/H4 into nascent chromatin during DNA replication. The p150 subunit of CAF-1 also supports the maintenance of heterochromatin, which requires the synthesis of both new histones and heterochromatin proteins and their orderly assembly during DNA replication. Heterochromatin is characterized as densely coiled chromatin that generally replicates late during S phase, has a low gene density, and contains large blocks of repetitive DNA that is relatively inaccessible to DNA-modifying reagents. In late S phase, p150 directly associates with heterochromatin associated proteins 1 (HP1α, HP1β and HP1γ). As cells prepare for mitosis, CAF-1 p150 and some HP1 progressively dissociate from heterochromatin, coinciding with the phosphorylation of Histone H3. The HP1 proteins reassociate with chromatin at the end of mitosis, as Histone H3 is dephosphorylated.

CHROMOSOMAL LOCATION

Genetic locus: CBX1 (human) mapping to 17q21.32; Cbx1 (mouse) mapping to 11 D.

SOURCE

HP1β (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HP1β of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10212 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

HP1β (C-15) is recommended for detection of HP1β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HP1β (C-15) is also recommended for detection of HP1β in additional species, including equine, canine, bovine, porcine and avian.

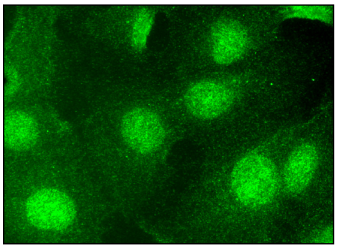
Suitable for use as control antibody for HP1β siRNA (h): sc-35587, HP1β siRNA (m): sc-35588, HP1β shRNA Plasmid (h): sc-35587-SH, HP1β shRNA Plasmid (m): sc-35588-SH, HP1β shRNA (h) Lentiviral Particles: sc-35587-V and HP1β shRNA (m) Lentiviral Particles: sc-35588-V.

Molecular Weight of HP1β: 25 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HP1β (C-15): sc-10212. Immunofluorescence staining of formalin-fixed HepG2 cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Young, A.P. and Longmore, G.D. 2004. Differences in stability of repressor complexes at promoters underlie distinct roles for Rb family members. Oncogene 23: 814-823.
2. Sun, F., et al. 2007. Nuclear reprogramming: the zygotic transcription program is established through an "erase-and-rebuild" strategy. Cell Res. 17: 117-134.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.