

# CAF-1 p150 (H-300): sc-10772

## 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, HP1, (HP1 $\alpha$ , HP1 $\beta$  and HP1 $\gamma$ ). 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: CHAF1A (human) mapping to 19p13.3; Chaf1a (mouse) mapping to 17 D.

## SOURCE

CAF-1 p150 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-200 of CAF-1 p150 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CAF-1 p150 (H-300) is recommended for detection of CAF-1 p150 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for CAF-1 p150 siRNA (h): sc-29876, CAF-1 p150 siRNA (m): sc-29877, CAF-1 p150 shRNA Plasmid (h): sc-29876-SH, CAF-1 p150 shRNA Plasmid (m): sc-29877-SH, CAF-1 p150 shRNA (h) Lentiviral Particles: sc-29876-V and CAF-1 p150 shRNA (m) Lentiviral Particles: sc-29877-V.

Molecular Weight of CAF-1 p150: 150 kDa.

Positive Controls: CAF-1 p150 (m): 293T Lysate: sc-118950, Jurkat nuclear extract: sc-2132 or HeLa nuclear extract: sc-2120.

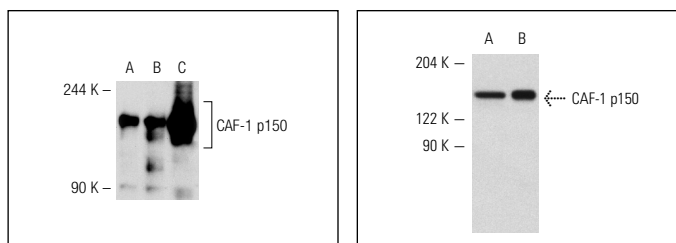
## STORAGE

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

## RESEARCH USE

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

## DATA



CAF-1 p150 (H-300): sc-10772. Western blot analysis of CAF-1 p150 expression in non-transfected: sc-117752 (A) and mouse CAF-1 p150 transfected: sc-118950 (B) 293T whole cell lysates and Jurkat nuclear extract (C).

CAF-1 p150 (H-300): sc-10772. Western blot analysis of CAF-1 p150 expression in HeLa (A) and K-562 (B) nuclear extracts.

## SELECT PRODUCT CITATIONS

- Tagami, H., et al. 2003. Histone H3.1 and H3.3 complexes mediate nucleosome assembly pathways dependent or independent of DNA synthesis. *Cell* 116: 51-61.
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- Baek, S.H., et al. 2006. Ligand-specific allosteric regulation of coactivator functions of androgen receptor in prostate cancer cells. *Proc. Natl. Acad. Sci. USA* 103: 3100-3105.
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- Chen, D., et al. 2013. Cigarette smoke component acrolein modulates chromatin assembly by inhibiting histone acetylation. *J. Biol. Chem.* 288: 21678-21687.

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Try **CAF-1 p150 (D-1): sc-133105** or **CAF-1 p150 (p150-48): sc-32742**, our highly recommended monoclonal alternatives to CAF-1 p150 (H-300).