

CHAF1A (D77D5) XP[®] Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H Mk	Endogenous	145	Rabbit IgG	#Q13111	10036

Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100
1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CHAF1A (D77D5) XP[®] Rabbit mAb detects endogenous levels of total CHAF1A protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro303 of human CHAF1A protein.

Background

Chromatin assembly factor 1 (CAF-1) is a histone H3/H4 chaperone complex that functions in de novo assembly of nucleosomes during DNA replication and nucleotide excision repair (1). Nucleosome assembly is a two-step process, involving initial deposition of a histone H3/H4 tetramer onto DNA, followed by the deposition of a pair of histone H2A/H2B dimers (1). CAF-1 interacts with PCNA and localizes to DNA replication and DNA repair foci, where it functions to assemble newly synthesized histone H3/H4 tetramers onto replicating DNA (2-6). Assembly of histone H2A/H2B dimers requires additional assembly factors. The CAF-1 complex consists of three proteins: CHAF1A (p150), CHAF1B (p60) and RBAP48 (p48 or RBBP4). CHAF1A and CHAF1B proteins are specific for the CAF-1 complex, while RBAP48 is a component of multiple chromatin modifying complexes (1). CHAF1A and CHAF1B expression levels correlate with cellular proliferation and both proteins are significantly down-regulated in quiescent cells (7).

Background References

- Adams, C.R. and Kamakaka, R.T. (1999) *Curr Opin Genet Dev* 9, 185-90.
- Smith, S. and Stillman, B. (1989) *Cell* 58, 15-25.
- Smith, S. and Stillman, B. (1991) *EMBO J* 10, 971-80.
- Shibahara, K. and Stillman, B. (1999) *Cell* 96, 575-85.
- Moggs, J.G. et al. (2000) *Mol Cell Biol* 20, 1206-18.
- Gaillard, P.H. et al. (1996) *Cell* 86, 887-96.
- Polo, S.E. et al. (2004) *Cancer Res* 64, 2371-81.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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