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p150 CAF1 Rabbit pAb

Catalog # AP98927

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q13111
Other Accession	Q13111
Reactivity	Mouse
Predicted	Rat, Pig, Human, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	106910
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human p150 CAF1
Epitope Specificity	355-450/956
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the CHAF1A family. foci.
SUBUNIT	Homodimer. Part of the CAF-1 complex that contains RBBP4, CHAF1B and CHAF1A. CHAF1A binds directly to CHAF1B. Only minor amounts of RBBP4 are complexed with CHAF1A and CHAF1B in G1 phase. Part of the CCR4-NOT core complex that contains CHAF1A, CHAF1B, CNOT1, CNOT2, CNOT3, CNOT4, CNOT6 and CNOT8. CHAF1A binds directly to PCNA and to CBX1. Binds MBD1. Interacts directly with CBX5 via the PxVxL motif. During DNA replication, it forms a S phase-specific complex that facilitates DNA methylation and histone H3 'Lys-9' methylation during replication-coupled chromatin assembly and is at least composed of the CHAF1A, MBD1 and SETDB1. Component of the WINAC complex, at least composed of SMARCA2, SMARCA4, SMARCB1, SMARCC1, SMARCC2, SMARCD1, SMARCE1, ACTL6A, BAZ1B/WSTF, ARID1A, SUPT16H, CHAF1A and TOP2B. Interacts with CBX5.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Core component of the CAF-1 complex, a complex thought to mediate chromatin assembly in DNA replication and DNA repair. Assembles histone octamers onto replicating DNA in vitro. CAF-1 performs the first step of the nucleosome assembly process, bringing newly synthesized histones H3 and H4 to replicating DNA; histones H2A/H2B can bind to this chromatin precursor subsequent to DNA replication to complete the histone octamer. CHAF1A binds to histones H3 and H4. It may play a role in heterochromatin maintenance in proliferating cells by bringing newly synthesized cbx proteins to heterochromatic DNA replication foci (By similarity). The CCR4-NOT complex functions as general transcription regulation complex. Also involved in vitamin D-coupled transcription regulation via its association with the WINAC complex, a chromatin-remodeling complex recruited by vitamin D receptor (VDR), which is required for the ligand-bound VDR-mediated

transrepression of the CYP27B1 gene.

Additional Information

Gene ID	10036
Other Names	CAF-1; CAF1; CAF1B; CAF1P150; P150; CAF1A_HUMAN; CHAF1A; CAF-1 subunit A; Chromatin assembly factor I p150 subunit (CAF-I 150 kDa subunit | CAF-I p150 | hp150); CAF; chromatin assembly factor 1 subunit A; chromatin assembly factor 1, subunit A (p150); chromatin assembly factor I (150 kDa)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CHAF1A (HGNC:1910)
Synonyms	CAF, CAF1P150
Function	Acts as a component of the histone chaperone complex chromatin assembly factor 1 (CAF-1), which assembles histone octamers onto DNA during replication and repair. CAF-1 performs the first step of the nucleosome assembly process, bringing newly synthesized histones H3 and H4 to replicating DNA; histones H2A/H2B can bind to this chromatin precursor subsequent to DNA replication to complete the histone octamer. It may play a role in heterochromatin maintenance in proliferating cells by bringing newly synthesized cbx proteins to heterochromatic DNA replication foci.
Cellular Location	Nucleus. Note=DNA replication foci

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.