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CHFR Rabbit pAb

Catalog # AP98434

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q96EP1
Other Accession	Q96EP1
Predicted	Rat, Human, Mouse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	73386
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CHFR
Epitope Specificity	41-140/664
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 CHFR family. Contains 1 FHA domain. Contains 1 PBZ-type zinc finger. Contains 1 RING-type zinc finger.
SUBUNIT	Interacts with HDAC1 and HDAC2. Interacts with PML (with sumoylated form of PML).
Post-translational modifications	Poly-ADP-ribosylated. In addition to binding non covalently poly(ADP-ribose) via its PBZ-type zinc finger, the protein is also covalently poly-ADP-ribosylated by PARP1. Autoubiquitinated; may regulate its cellular level. Phosphorylated upon DNA damage, probably by ATM or ATR (By similarity). Phosphorylated by PKB. Phosphorylation may affect its E3 ligase activity.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	A number of human cancers are sensitive to mitotic stress, implying checkpoint defects. Many proteins that contain forkhead-associated (FHA) domains are cell cycle checkpoints and CHFR is one such protein. It has a FHA and ring finger domain within its N terminus. Within its C terminus, CHFR contains a cysteine-rich region that did not display significant similarity to any protein in the GenBank database, but is highly conserved between humans and mice. It has been concluded that CHFR defines a checkpoint that delays entry into metaphase in response to mitotic stress. It has been found CpG methylation-dependent silencing of CHFR expression occurs in 45% of cancer cell lines, 40% of primary colorectal cancers, 53% of colorectal adenomas, and 30% of primary head and neck cancers.

Additional Information

Gene ID	55743
Other Names	RNF116; RNF196; 5730484M20Rik; C230082M18; CHFR_HUMAN; CHFR; Checkpoint with forkhead and RING finger domains protein; RING finger protein 196; RING-type E3 ubiquitin transferase CHFR; 2.3.2.27; CHFR_MOUSE;

	checkpoint with forkhead and ring finger domains
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	CHFR
Synonyms	RNF196
Function	E3 ubiquitin-protein ligase that functions in the antephase checkpoint by actively delaying passage into mitosis in response to microtubule poisons. Acts in early prophase before chromosome condensation, when the centrosome move apart from each other along the periphery of the nucleus. Probably involved in signaling the presence of mitotic stress caused by microtubule poisons by mediating the 'Lys- 48'-linked ubiquitination of target proteins, leading to their degradation by the proteasome. Promotes the ubiquitination and subsequent degradation of AURKA and PLK1. Probably acts as a tumor suppressor, possibly by mediating the polyubiquitination of HDAC1, leading to its degradation. May also promote the formation of 'Lys-63'- linked polyubiquitin chains and functions with the specific ubiquitin-conjugating UBC13-MMS2 (UBE2N-UBE2V2) heterodimer. Substrates that are polyubiquitinated at 'Lys-63' are usually not targeted for degradation, but are rather involved in signaling cellular stress.
Cellular Location	Nucleus, PML body
Tissue Location	Ubiquitous..

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