



Rabbit Anti-CHFR antibody

SL4272R

Product Name:	CHFR
Chinese Name:	Ubiquitin连接酶蛋白CHFR抗体
Alias:	Checkpoint with forkhead and ring finger domains; Checkpoint with forkhead and RING finger domains protein; E3 ubiquitin protein ligase CHFR; EC 6.3.2.; RING finger protein 196; RNF 116; RNF 196; RNF116; RNF196; Ubiquitin ligase protein; CHFR HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	73 kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human CHFR:41-140/664
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	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.

Function:

E3 ubiquitin-protein ligase that functions in the antephasic 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.

Subunit:

Interacts with HDAC1 and HDAC2. Interacts with PML (with sumoylated form of PML).

Subcellular Location:

Nucleus, PML body.

Tissue Specificity:

Ubiquitous.

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.

Similarity:

Belongs to the CHFR family.
Contains 1 FHA domain.
Contains 1 PBZ-type zinc finger.
Contains 1 RING-type zinc finger.

SWISS:

Q96EP1

Gene ID:

55743

Database links:

[Entrez Gene: 55743](#) Human

[Entrez Gene: 231600](#) Mouse

[Omim: 605209](#) Human

[SwissProt: Q96EP1](#) Human

[SwissProt: Q810L3](#) Mouse

[Unigene: 720197](#) Human

[Unigene: 30264](#) Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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