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MHF2/CENPX Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57314

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	A8MT69
Reactivity	Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	8959

Additional Information

Gene ID	201254
Other Names	Centromere protein X, CENP-X, FANCM-associated histone fold protein 2, FANCM-interacting histone fold protein 2, Fanconi anemia-associated polypeptide of 10 kDa, Retinoic acid-inducible gene D9 protein homolog, Stimulated by retinoic acid gene 13 protein homolog, CENPX
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=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	CENPX
Function	DNA-binding component of the Fanconi anemia (FA) core complex. Required for the normal activation of the FA pathway, leading to monoubiquitination of the FANCI-FANCD2 complex in response to DNA damage, cellular resistance to DNA cross-linking drugs, and prevention of chromosomal breakage (PubMed:20347428, PubMed:20347429). In complex with CENPS (MHF heterodimer), crucial cofactor for FANCM in both binding and ATP-dependent remodeling of DNA. Stabilizes FANCM. In complex with CENPS and FANCM (but not other FANC proteins), rapidly recruited to blocked forks and promotes gene conversion at blocked replication forks (PubMed:20347428, PubMed:20347429). In complex with CENPS, CENPT and CENPW (CENP-T-W-S-X heterotetramer), involved in the formation of a functional kinetochore outer plate, which is essential for kinetochore-microtubule attachment and faithful mitotic progression (PubMed:19620631). As a component of MHF and CENP-T-W-S-X complexes, binds DNA and bends it to form a nucleosome-like structure (PubMed:20347428, PubMed:20347429).

	DNA-binding function is fulfilled in the presence of CENPS, with the following preference for DNA substates: Holliday junction > double-stranded > splay arm > single- stranded. Does not bind DNA on its own (PubMed:20347429).
Cellular Location	Nucleus. Chromosome, centromere. Chromosome, centromere, kinetochore. Note=Assembly of CENPS and CENPX and its partner subunits CENPT and CENPW at centromeres occurs through a dynamic exchange mechanism. Although exchange is continuous in the cell cycle, de novo assembly starts principally during mid-late S phase and is complete by G2. CENPX being less stably bound at the kinetochore than CENPS.

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