10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CTC1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55418

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q2NKJ3
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	134609

Additional Information

Gene ID	80169
Other Names	CST complex subunit CTC1, Conserved telomere maintenance component 1, HBV DNAPTP1-transactivated protein B, CTC1, C17orf68
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	CTC1
Synonyms	C17orf68
Function	Component of the CST complex proposed to act as a specialized replication factor promoting DNA replication under conditions of replication stress or natural replication barriers such as the telomere duplex. The CST complex binds single-stranded DNA with high affinity in a sequence-independent manner, while isolated subunits bind DNA with low affinity by themselves. Initially the CST complex has been proposed to protect telomeres from DNA degradation (PubMed:19854130). However, the CST complex has been shown to be involved in several aspects of telomere replication. The CST complex inhibits telomerase and is involved in telomere length homeostasis; it is proposed to bind to newly telomerase-synthesized 3' overhangs and to terminate telomerase action implicating the association with the ACD:POT1 complex thus interfering with its telomerase stimulation activity. The CST complex is also proposed to be involved in fill-in synthesis of the telomeric C-strand probably implicating recruitment and activation of DNA polymerase alpha (PubMed:22763445). The CST complex facilitates recovery from many

	forms of exogenous DNA damage; seems to be involved in the re-initiation of DNA replication at repaired forks and/or dormant origins (PubMed:25483097). Involved in telomere maintenance (PubMed:19854131, PubMed:22863775). Involved in genome stability (PubMed:22863775). May be in involved in telomeric C-strand fill-in during late S/G2 phase (By similarity).
Cellular Location	Nucleus. Chromosome, telomere. Note=A transmembrane region is predicted by sequence analysis tools (ESKW, MEMSAT and Phobius); however, given the telomeric localization of the protein, the relevance of the transmembrane region is unsure in vivo

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