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CQ068 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP4761c

Specification

CQ068 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q2NKJ3

CQ068 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 80169

Other Names
CST complex subunit CTC1, Conserved telomere maintenance component 1, HBV DNAPTP1-transactivated protein B, CTC1, C17orf68

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CQ068 Antibody (Center) Blocking Peptide - 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

CQ068 Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

CQ068 Antibody (Center) Blocking Peptide - Images

CQ068 Antibody (Center) Blocking Peptide - Background

CQ068 is subunits of an alpha accessory factor (AAF) that stimulates the activity of DNA polymerase-alpha-primase (see MIM 176636), the enzyme that initiates DNA replication. CQ068 also appears to function in a telomere-associated complex with OBFC1 and TEN1.

CQ068 Antibody (Center) Blocking Peptide - References

Surovtseva, Y.V., et al. Mol. Cell 36(2):207-218(2009)Miyake, Y., et al. Mol. Cell 36(2):193-206(2009)Casteel, D.E., et al. J. Biol. Chem. 284(9):5807-5818(2009)