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HEL308 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP5124c

Specification

HEL308 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q8TDG4

HEL308 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 113510

Other Names
Helicase POLQ-like, Mus308-like helicase, POLQ-like helicase, HELQ, HEL308

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.

HEL308 Antibody (Center) Blocking Peptide - Protein Information

Name HELQ {ECO:0000303|PubMed:24005041, ECO:0000312|HGNC:HGNC:18536}

Function
Single-stranded 3'-5' DNA helicase that plays a key role in homology-driven double-strand break (DSB) repair (PubMed:11751861, PubMed:19995904, PubMed:21398521, PubMed:24005041, PubMed:24005565, PubMed:34316696, PubMed:34937945). Involved in different DSB repair mechanisms that are guided by annealing of extensive stretches of complementary bases at break ends, such as microhomology-mediated end- joining (MMEJ), single-strand annealing (SSA) or synthesis-dependent strand annealing (SDSA) (PubMed:34937945). Possesses both DNA unwinding and annealing activities (PubMed:34937945). Forms a complex with RAD51, stimulating HELQ DNA helicase activity and ability to unwing DNA (PubMed:34937945). Efficiently unwinds substrates containing 3' overhangs or a D-loop (PubMed:<a

href="http://www.uniprot.org/citations/21398521" target="_blank">21398521, PubMed:34937945). In contrast, interaction with the replication protein A (RPA/RP-A) complex inhibits DNA unwinding by HELQ but strongly stimulates DNA strand annealing (PubMed:34937945). Triggers displacement of RPA from single-stranded DNA to facilitate annealing of complementary sequences (PubMed:34316696, PubMed:34937945).

Cellular Location
Nucleus. Chromosome Note=Localizes to sites of DNA damage; localizes to damaged replication forks.

HEL308 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

HEL308 Antibody (Center) Blocking Peptide - Images

HEL308 Antibody (Center) Blocking Peptide - Background

HEL308 is a single-stranded DNA-dependent ATPase and DNA helicase.

HEL308 Antibody (Center) Blocking Peptide - References

Bethke, L., et al. J. Natl. Cancer Inst. 100(4):270-276(2008)Marini, F., et al. J. Biol. Chem. 278(34):32014-32019(2003)