

HEL308 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP5124c**Specification**

HEL308 Antibody (Center) Blocking Peptide - Product InformationPrimary 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](http://www.uniprot.org/citations/11751861), PubMed: [19995904](http://www.uniprot.org/citations/19995904), PubMed: [21398521](http://www.uniprot.org/citations/21398521), PubMed: [24005041](http://www.uniprot.org/citations/24005041), PubMed: [24005565](http://www.uniprot.org/citations/24005565), PubMed: [34316696](http://www.uniprot.org/citations/34316696), PubMed: [34937945](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/34937945)). Possesses both DNA unwinding and annealing activities (PubMed: [34937945](http://www.uniprot.org/citations/34937945)). Forms a complex with RAD51, stimulating HELQ DNA helicase activity and ability to unwind DNA (PubMed: [34937945](http://www.uniprot.org/citations/34937945)). Efficiently unwinds substrates containing 3' overhangs or a D-loop (PubMed: [34937945](http://www.uniprot.org/citations/34937945)).

[21398521](http://www.uniprot.org/citations/21398521), PubMed: [34937945](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/34937945)). Triggers displacement of RPA from single-stranded DNA to facilitate annealing of complementary sequences (PubMed: [34316696](http://www.uniprot.org/citations/34316696), PubMed: [34937945](http://www.uniprot.org/citations/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)