

HELQ (D4K2O) Rabbit mAb

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Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 130	Source/Isotype: Rabbit IgG	UniProt ID: #Q8TDG4	Entrez-Gene Id: 113510
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

HELQ (D4K2O) Rabbit mAb recognizes endogenous levels of total HELQ protein. In some cell lines, this antibody cross-reacts with a 200 kDa band of unknown identity by western blot.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro1091 of human HELQ protein.

Background

DNA interstrand crosslinks (ICLs) are toxic DNA lesions caused by environmental agents as well as some chemotherapeutic drugs. These lesions are repaired via multiple DNA repair pathways. HELQ (also known as HEL308) is a 3'-5' DNA helicase that colocalizes with stalled DNA replication forks in response to DNA damage, and contributes to the repair of ICL lesions through ATR signaling (1,2). HELQ interacts with various DNA repair proteins, including FANCD2, RAD51, RAD51 paralogs, and ATR (1-3). HELQ-deficient mice exhibit reduced fertility as well as interstrand crosslink (ICL) repair defects, and are prone to tumors (3).

Background References

1. Tafel, A.A. et al. (2011) *J Biol Chem* 286, 15832-40.
2. Takata, K. et al. (2013) *Nat Commun* 4, 2338.
3. Adelman, C.A. et al. (2013) *Nature* 502, 381-4.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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