

#19436 Store at -20°C

HELQ (D4K2O) Rabbit mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	130	Rabbit IgG	#Q8TDG4	113510

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	<ol style="list-style-type: none"> 1. Tafel, A.A. et al. (2011) <i>J Biol Chem</i> 286, 15832-40. 2. Takata, K. et al. (2013) <i>Nat Commun</i> 4, 2338. 3. Adelman, C.A. et al. (2013) <i>Nature</i> 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	WB: Western Blotting
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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