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HELLS Antibody


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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M Mk	Endogenous	97	Rabbit	#Q9NRZ9	3070

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 and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	HELLS Antibody recognizes endogenous levels of total HELLS protein. HELLS Antibody is predicted to detect multiple isoforms of this protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys520 of human HELLS protein. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	HELLS, or LSH1, is a lymphoid-specific helicase thought to be involved in cellular proliferation and leukemogenesis (1,2). It is believed to be a chromatin remodeler and is required for DNMT1-mediated methylation maintenance and DNMT3A/DNMT3B-mediated <i>de novo</i> methylation. The role of HELLS in methylation maintenance was thought to be largely confined to repetitive DNA sequences, including major and minor satellite sequences, rather than single copy genes (3,4); recent evidence suggests a role in genome-wide cysteine methylation at non-repeat sequences (5). <i>De novo</i> methylation maintenance is associated with silencing of specific genes, some known to be involved in pluripotency and lineage commitment (6,7).	
Background References	1. Lee, D.W. et al. (2000) <i>Cancer Res</i> 60, 3612-22. 2. Fan, T. et al. <i>Epigenetics</i> 3, 134-42. 3. Dennis, K. et al. (2001) <i>Genes Dev</i> 15, 2940-4. 4. Muegge, K. (2005) <i>Biochem Cell Biol</i> 83, 548-54. 5. Tao, Y. et al. (2011) <i>Proc Natl Acad Sci USA</i> 108, 5626-31. 6. Xi, S. et al. (2009) <i>Stem Cells</i> 27, 2691-702. 7. Xi, S. et al. (2007) <i>Proc Natl Acad Sci USA</i> 104, 14366-71.	

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 BSA, 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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