

HELLS Antibody

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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:
W	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 *de novo* 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). *De novo* 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) *Cancer Res* 60, 3612-22.
2. Fan, T. et al. *Epigenetics* 3, 134-42.
3. Dennis, K. et al. (2001) *Genes Dev* 15, 2940-4.
4. Muegge, K. (2005) *Biochem Cell Biol* 83, 548-54.
5. Tao, Y. et al. (2011) *Proc Natl Acad Sci USA* 108, 5626-31.
6. Xi, S. et al. (2009) *Stem Cells* 27, 2691-702.
7. Xi, S. et al. (2007) *Proc Natl Acad Sci USA* 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

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

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