

Human RAD51 Knockdown Cell Lysate

Cat. No. RAD51-286HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated RAD51 Knockdown HeLa Cell Lysate
Species	Human
Source	HeLa
Description	The protein encoded by this gene is a member of the RAD51 protein family. RAD51 family members are highly similar to bacterial RecA and <i>Saccharomyces cerevisiae</i> Rad51, and are known to be involved in the homologous recombination and repair of DNA. This protein can interact with the ssDNA-binding protein RPA and RAD52, and it is thought to play roles in homologous pairing and strand transfer of DNA. This protein is also found to interact with BRCA1 and BRCA2, which may be important for the cellular response to DNA damage. BRCA2 is shown to regulate both the intracellular localization and DNA-binding ability of this protein. Loss of these controls following BRCA2 inactivation may be a key event leading to genomic instability and tumorigenesis. Multiple transcript variants encoding different isoforms have been found for this gene.
Form	Cell-Tissue Lysis buffer
Molecular Mass	37 kDa
Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HeLa cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and

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	equal amount of total proteins.
Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HeLa cell lysate 1 vial of 100 µg RAD51 KD HeLa cell lysate
Protein Families	Druggable Genome, Stem cell - Pluripotency, Transcription Factors
Protein Pathways	Homologous recombination, Pancreatic cancer, Pathways in cancer
Lysate QC	RT-qPCR; Western Blotting (WB)

GENE INFORMATION

Gene Name	RAD51 RAD51 homolog (S. cerevisiae) [Homo sapiens (human)]
Official Symbol	RAD51
Synonyms	RAD51; RAD51 homolog (S. cerevisiae); RAD51 (S. cerevisiae) homolog (E coli RecA homolog), RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae), RAD51A, RECA; DNA repair protein RAD51 homolog 1; BRCA1/BRCA2 containing complex; subunit 5; BRCC5; HsRad51; HsT16930; RAD51 homolog A; RecA-like protein; recombination protein A; RecA, E. coli, homolog of; RAD51 homolog (RecA homolog, E. coli); BRCA1/BRCA2-containing complex, subunit 5; RECA; MRMV2; HRAD51; RAD51A;
Gene ID	5888

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mRNA Refseq	NM_001164269
Protein Refseq	NP_001157741
MIM	179617
UniProt ID	Q06609

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