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Product datasheet for TR316660

PMS2 Human shRNA Plasmid Kit (Locus ID 5395)

Product data:

Product Type:	shRNA Plasmids
Product Name:	PMS2 Human shRNA Plasmid Kit (Locus ID 5395)
Locus ID:	5395
Synonyms:	HNPCC4; MLH4; MMRCS4; PMS2CL; PMSL2
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	PMS2 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 5395). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_000535, NM_001018040, NR_003085, NM_001322003, NM_001322004, NM_001322005, NM_001322006, NM_001322007, NM_001322008, NM_001322009, NM_001322010, NM_001322011, NM_001322012, NM_001322013, NM_001322014, NM_001322015, NR_136154, NM_000535.1, NM_000535.2, NM_000535.3, NM_000535.4, NM_000535.5, NM_000535.6, BC093921, BC093921.1, BC008400, BC031832, BC143397, BM669686, NM_000535.7
UniProt ID:	P54278
Summary:	The protein encoded by this gene is a key component of the mismatch repair system that functions to correct DNA mismatches and small insertions and deletions that can occur during DNA replication and homologous recombination. This protein forms heterodimers with the gene product of the mutL homolog 1 (MLH1) gene to form the MutL-alpha heterodimer. The MutL-alpha heterodimer possesses an endonucleolytic activity that is activated following recognition of mismatches and insertion/deletion loops by the MutS-alpha and MutS-beta heterodimers, and is necessary for removal of the mismatched DNA. There is a DQHA(X)2E(X)4E motif found at the C-terminus of the protein encoded by this gene that forms part of the active site of the nuclease. Mutations in this gene have been associated with hereditary nonpolyposis colorectal cancer (HNPCC; also known as Lynch syndrome) and Turcot syndrome. [provided by RefSeq, Apr 2016]

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shRNA Design:

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed:

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).