

## Product datasheet for RC230403L3V

## OriGene Technologies, Inc.

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## MLH1 (NM\_001167617) Human Tagged ORF Clone Lentiviral Particle

**Product data:** 

**Product Type:** Lentiviral Particles

**Product Name:** MLH1 (NM\_001167617) Human Tagged ORF Clone Lentiviral Particle

Symbol: MLH1

Synonyms: COCA2; FCC2; hMLH1; HNPCC; HNPCC2; MMRCS1

Mammalian Cell

Selection:

Puromycin

**Vector:** pLenti-C-Myc-DDK-P2A-Puro (PS100092)

Tag: Myc-DDK

**ACCN:** NM\_001167617

ORF Size: 1974 bp

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC230403).

Sequence:
OTI Disclaimer:

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing

variants is recommended prior to use. More info

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression

varies depending on the nature of the gene.

**RefSeg:** NM 001167617.1

RefSeq Size: 2473 bp
RefSeq ORF: 1977 bp
Locus ID: 4292
UniProt ID: P40692
Cytogenetics: 3p22.2

**Protein Families:** Druggable Genome

**Protein Pathways:** Colorectal cancer, Endometrial cancer, Mismatch repair, Pathways in cancer





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**MW:** 73.8 kDa

**Gene Summary:** The protein encoded by this gene can heterodimerize with mismatch repair endonuclease

PMS2 to form MutL alpha, part of the DNA mismatch repair system. When MutL alpha is bound by MutS beta and some accessory proteins, the PMS2 subunit of MutL alpha introduces a single-strand break near DNA mismatches, providing an entry point for exonuclease degradation. The encoded protein is also involved in DNA damage signaling and can heterodimerize with DNA mismatch repair protein MLH3 to form MutL gamma, which is involved in meiosis. This gene was identified as a locus frequently mutated in hereditary

nonpolyposis colon cancer (HNPCC). [provided by RefSeq, Aug 2017]