PML cDNA Clone – Promyelocytic Leukemia (Human)

PRODUCT OVERVIEW

Product Name	PML, cDNA Clone
Full Product Name	PML cDNA Clone
Product Gene Name	PML cdna clone
Sequence	atggagcctg cacccgcccg atctccgagg ccccagcagg accccgcccg gccccaggag cccaccatgc ctccccccga gacccctct gaaggccgcc agcccagccc cagccccagc cctacagagc gagcccccgc ttcggaggag gagttccagt ttctgcgctg ccagcaatgc caggcggaag ccaagtgccc gaagctgctg ccttgtctgc acacgctgtg ctcaggatgc ctggaggcgt cgggcatgca gtgccccatc tgccaggcgc cctggcccct aggtgcagac acacccgccc tggataacgt ctttttcgag agtctgcagc ggcgcctgtc ggtgtaccgg cagattgtgg atgcgcaggc tgtgtgcacc cgctgcaaag agtcggccga cttctggtgc tttgagtgcg agcagctcct ctgcgccaag tgcttcgagg cacaccagtg gttcctcaag cacgaggccc ggcccctagc agagctgcgc aaccagtcgg tgcgtgagtt cctggacggc acccgcaaga ccaacaacat cttctgctcc aaccccaacc accgcacccc tacgctgacc agcatctact gccgaggatg ttccaagccg ctgtgctgct cgtgcgcgct ccttgacagc agccacagtg atctcaagtg cgacatcagc gcagagatcc agcagcgaca ggaggagctg gacgccatga cgcaggcgct gcaggagcag gatagtgcct ttggcgcggt tcacgcgcag atgcacgcgg ctgtcggcca gctgggccgc gcgcgtgccg agaccgagga gctgatccgc gagcgcgtgc gccaggtggt agctcacgtg cgggctcagg agcgcgagct gctggaggct gtggacgcgc ggtaccagcg cgactacgag gagatggcca gtcggctggg ccgcctggat gctgtgctgc agcgcatccg cacgggcagc gcgctggtgc agaggatgaa gtgctacgcc tcggaccagg aggtgctgga catgcacggt ttcctgcgcc aggcgctctg ccgcctgcgc caggaggagc cccagagcct gcaagctgcc gtgcgcaccg atggcttcga cgagttcaag gtgcgcctgc aggacctcag ctcttgcatc acccagggga aagatgcagc tgtatccaag aaagccagcc cagaggctgc cagcactccc agggacccta ttgacgttga cctggatgtc tccaatacaa cgacagccca gaagaggaag tgcagccaga cccagtgccc caggaaggtc atcaagatgg agtctgagga ggggaaggag gcaaggttgg ctcggagctc cccggagcag cccaggccca gcacctccaa ggcagtctca ccaccccacc tggatggacc gcctagcccc aggagccccg tcataggaag tgaggtcttc ctgcccaaca gcaaccacgt ggccagtggc gccggggagg cagaggaacg cgttgtggtg atcagcagct cggaagactc agatgccgaa aactcgtgca tggagcccat ggagaccgcc gagccacagt cctcgccagc ccactcctcg ccagcccact cctcgccagc ccactcctcg ccagtccagt ctctgctgag agcacaagga gcctccagcc tgccctgtgg cacataccac cccccagctt ggcctcccca ccagcccgct gagcaggctg ccacccccga tgctgagcct cacagcgagc ctcctgatca ccaggagcgc cctgccgtcc accgtgggat ccgctacctg ttgtacagag cacagagagc catccgcctt cgccatgccc tccgcttgca ccctcaattg catcgggccc ctattcggac ttggtctccc catgtggtcc aagccagcac tcctgccatc acagggcccc tcaaccatcc tgccaatgcc caggaacatc ctgcccagct gcaaaggggc atcagcccac cccaccggat acgaggggct gtgcgatccc gcagccgctc cctccggggc tcctcccatt tatcccagtg gctcaacaac ttttttgccc tccccttctc ctccatggct tcccagcttg acatgtcttc cgtggtgggg gcaggggaag gcagagccca gactcttgga gcagttgttc cccctgggga ctctgtcaga ggctccatgg aggcctctca agtccaagtg cctctggaag cctctccaat tacattccca ccaccctgtg ccccagaaag gccccccatc agcccagtcc caggcgcccg tcaagcaggc ctctga
Molecular Weight	47,575 Da
OMIM	102578
Vector	Please Inquire
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for PML cdna clone	MBS1275482 is a cDNA clone targeting PML.
Other Notes	Small volumes of PML cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PML. It may not necessarily be applicable to this product.

NCBI GI #	33875196
NCBI GeneID	5371
NCBI Accession #	BC000080

UniProt Secondary Accession #	P29591; P29592; P29593; Q00755; Q15959; Q59FP9; Q8WUA0; Q96S41; Q9BPW2; Q9BWP7; E9PBR7
UniProt Related Accession #	P29590
NCBI Official Full Name	Homo sapiens promyelocytic leukemia, mRNA
NCBI Official Synonym Full Names	promyelocytic leukemia
NCBI Official Symbol	PML
NCBI Official Synonym Symbols	MYL; RNF71; PP8675; TRIM19
UniProt Protein Name	Protein PML
UniProt Synonym Protein Names	Promyelocytic leukemia protein; RING finger protein 71; Tripartite motif-containing protein 19
Protein Family	Protein
UniProt Gene Name	PML
UniProt Synonym Gene Names	MYL; PP8675; RNF71; TRIM19
UniProt Entry Name	PML_HUMAN
NCBI Protein Information	protein PML
NCBI Summary for PML	The protein encoded by this gene is a member of the tripartite motif (TRIM) family. The TRIM motif includes three zinc-binding domains, a RING, a B-box type 1 and a B-box type 2, and a coiled-coil region. This phosphoprotein localizes to nuclear bodies where it functions as a transcription factor and tumor suppressor. Its expression is cell-cycle related and it regulates the p53 response to oncogenic signals. The gene is often involved in the translocation with the retinoic acid receptor alpha gene associated with acute promyelocytic leukemia (APL). Extensive alternative splicing of this gene results in several variations of the protein's central and C-terminal regions; all variants encode the same N-terminus. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]
UniProt Comments for PML	PML: a zinc-finger protein that can regulate transcription and can localize to nuclear bodies. Cytoplasmic forms regulate glycolysis by inhibiting the tetrameric form of PKM2. Together with SATB1, involved in local chromatin-loop remodeling and gene expression regulation at the MHC-I locus. Interacts with SIRT1, TOPBP1, TRIM27 and TRIM69. Sumoylated forms interact with SATB1 and localize to the PML nuclear bodies. Sumoylation on three sites is required for nuclear body formation. Sumoylation on Lys-160 is a prerequisite for sumoylation on Lys-65. The B1 box and the RING finger are also required for localization to nuclear bodies. May play an important role in recruitment of ELF4 into PML nuclear bodies. A chromosomal aberration involving PML can cause acute promyelocytic leukemia (APL). Seven alternatively-spliced human isoforms have been reported. Protein type: Nucleolus; Oncoprotein; Transcription factor; Tumor suppressor; Ubiquitin conjugating system Chromosomal Location of Human Ortholog: 15q22 Cellular Component: cytoplasm; cytosol; nuclear chromosome, telomeric region; nuclear membrane; nucleolus; nucleoplasm; nucleus; PML body Molecular Function: protein binding; protein homodimerization activity; SUMO binding; ubiquitin protein ligase binding Biological Process: circadian regulation of gene expression; DNA damage response, signal transduction by p53 class mediator resulting in cell cycle arrest; DNA damage response, signal transduction by p53 class mediator resulting in induction of apoptosis; endoplasmic reticulum calcium ion homeostasis; entrainment of circadian clock by photoperiod; innate immune response; maintenance of protein localization in nucleus; negative regulation of angiogenesis; negative regulation of cell growth; negative regulation of cell proliferation; negative regulation of transcription, DNA-dependent; PML body organization and biogenesis; positive regulation of telomere maintenance; proteasomal ubiquitin-dependent protein catabolic process; protein complex assembly; protein sumoylation; regulation of circadian rhythm; regulation of protein amino acid phosphorylation; regulation of transcription, DNA-dependent; response to cytokine stimulus; response to hypoxia
Research Articles on PML	**1.** Our work provides a novel view of the physiologic function of PML, which participates in telomeres surveillance in normal cells. Our data further imply that a diminished PML function may contribute to cell senescence, genomic instability and tumorigenesis

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