

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_005574 unedited
 GTTCAAATTTGTATACGACTCATATAGGGCGGCCGGAATTCGCACGAGGCGGGCGCACAC
 CCATCCCCCGGGCGGCGCGGAGCCGGCGACAGCGCGGAGAGGGACCGGGCGGTGGCGG
 CGGCGGGACCGGGATGGAAGGGAGCGCGGTGACTGTCTTGAGCGCGGAGGGGCGAGCTC
 GCCGGCGGAGCGCCGAGCAAGCGGAGGCGCAGGAGCGGCGGCGACGGCGGGCGGGCGG
 CGGCGCCCGAGCACCCGAGGGGGTCCGAGCCCCGGCAGCCGGCCAGCCCCGCGCCACAAA
 GGGAGCGCCCCCGCCCGCCGACCCCGCTCCCTCCCAATGTCCTCGGCCATCGAAAG
 GAAGAGCCTGGACCCTTCAGAGGAACCAAGTGATGAGGTGCTGCAGATCCCCCATCCCT
 GCTGACATGCGGCGGCTGCCAGCAGAACATTGGGGACCGCTACTTCTGAAGGCCATCGA
 CCAGTACTGGCACGAGGACTGCCTGAGCTGCGACCTCTGTGGTGCCGGCTGGGTGAGGT
 GGGGCGGCGCCTCTACTACAACTGGGCGGAAGCTCTGCCGAGAGACTATCTCAGGCT
 TTTTGGGCAAGACGGTCTCTGCGCATCCTGTGANCAGCGGATTCGTGCCTATGANGATGA
 CATGCGGGTGAAAAGACAAGTGATCACCTGGAATGTTTCAAGTGCGCCGCTGTCAGAA
 GCATTCTGTGTANGTGACAGATACCTCCTCATCCACTCTGACATAGTGTGCGAAACAGA
 CATCTACGAGTGGACTAAGATCAATGGGATGATATAGGCCGAGTCCCCGGCATCTTTG
 GGGAGGTGTTACTGAAGACGCCTTCTCCATGGGATCTTCTCCTCACTCTTAGCACTTTG
 GGGTTTGAAGTGGGTAAAGGGGATTCTTAGGGTGGGGAACCTTTATGGGGTT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_005574 unedited
 ATGGCCGCGGCCGCACTTANATCGAGTTTTTTTTTTTTTTTTTTCAGTCTGTCATTTTT
 ATTAAGCCTGCAGAGCTGTTTTTTTTTCTACACAGCAAAATACTTTGATATAATCTAG
 GATAATAAAATAGTTGAACAACTTTTAAGATTTATTTGTATAGAAACAATCTGTGGA
 ACTCCTCCCTCAAAATGAAGGTGTCTAAAAACAGTGATTNTCATCAGCATTGCTTTAAA
 TAATTGTTTGTTAAAAGTTGTGGTTTCCATTCTCAACCGAAATGCGTCTCCATGCAGTT
 TTCCTTGGGTCCCAAACTTAAGGCTTGGGAAGGGGGCCAAAGAAAAAAGATGGCCAC
 TCTCTTTCTGTCCTTCCCTTGTGTGGAGGACAGTGATTGAAACAGGGGAGTTAAAAAGC
 CAGGAAGAAAAGAAATCAATTGCACATCTCTAGTTCGCAAGCGTCAAAGTCACAACAAGT
 CTGTACACAACAACCTCTATCTGTAGATATGAAATCCATCATGATAGCACAGCGCCTG
 CTTGCCCTAAATGTTCTTTCTTCTGCTAATCATGTGAGTACTATGGATGGGCTGTGG
 GCCATAAGTCTCCCTCAAGGGCTGGTCTTCTGTACCTTGAATGTCAGCCCTGAATTA
 TGCATTGATGCTATGTCTGATACCCATAAGTTTACCATCCCCTAGAATCCCTACCCAC
 CTCACCCCAAAGTGCTAAAAGTGAGACCAGATGCATGGANCGGGTTTTAGGAACACCT
 CCCAAGATGCGGGGACTGGGCCTTTTCATCCATGGTCTAATCACTCTAAATGTCTGTTCC
 CCCTTTGTCAAGTGTGAGGAGGTTTTGCACTCACAAAATGCTTTGAAGGGGGCTTAAAA
 TTCAGGGAACTTTGTTTCCCCCATGTATTTATAGGCAATCCTTTTCAGGATGCAAAACCT
 TGCCAAAATAAATTTTC

Restriction Sites:

Please inquire

ACCN:

NM_005574

Insert Size:

2303 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_005574.3](#), [NP_005565.2](#)

RefSeq Size: 2303 bp

RefSeq ORF: 684 bp

Locus ID: 4005

UniProt ID: [P25791](#)

Cytogenetics: 11p13

Domains: LIM

Protein Families: Druggable Genome

Gene Summary:

LMO2 encodes a cysteine-rich, two LIM-domain protein that is required for yolk sac erythropoiesis. The LMO2 protein has a central and crucial role in hematopoietic development and is highly conserved. The LMO2 transcription start site is located approximately 25 kb downstream from the 11p13 T-cell translocation cluster (11p13 ttc), where a number T-cell acute lymphoblastic leukemia-specific translocations occur. Alternative splicing results in multiple transcript variants encoding different isoforms.[provided by RefSeq, Nov 2008]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longer isoform.