

## Product datasheet for **SC116662**

### LMO2 (NM\_005574) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LMO2 (NM_005574) Human Untagged Clone
Tag:	Tag Free
Symbol:	LMO2
Synonyms:	LMO-2; RBTN2; RBTNL1; RHOM2; TTG2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_005574 edited ATGGAAGGGAGCGCGGTGACTGTCCTTGAGCGCGAGGGGCGAGCTCGCCGGCGGAGCGC CGGAGCAAGCGGAGGCGCAGGAGCGGCGGCGACGGCGGCGGCGGCGGCGGCCGAGCA CCCGAGGGGGTCCGAGCCCCGGCAGCCGCGCCAGCCCCGCGCCACAAAGGGAGCGCCCCG CCGCCCCGGCACCCCGCTCCCTCCCAATGTCCTCGGCCATCGAAAGGAAGAGCCTGGAC CCTTCAGAGGAACCAAGTGGATGAGGTGCTGCAGATCCCCCATCCCTGCTGACATGCGGC GGCTGCCAGCAGAACATTGGGGACCGCTACTTCTGAAGGCCATCGACCAGTACTGGCAC GAGGACTGCCTGAGCTGCGACCTCTGTGGCTGCCGGCTGGGTGAGGTGGGGCGGCGCCTC TACTACAAACTGGGCCGGAAGCTCTGCCGAGAGACTATCTCAGGCTTTTGGGCAAGAC GGTCTCTGCGCATCCTGTGACAAGCGGATTCGTGCCTATGAGATGACAATGCGGGTGAAA GACAAAGTGTATCACCTGGAATGTTCAAGTGCGCCGCTGTGAGAAGCATTTCTGTGTA GGTGACAGATACCTCCTCATCAACTCTGACATAGTGTGCGAACAGGACATCTACGAGTGG ACTAAGATCAATGGGATGATATAG



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_005574 unedited  
 GTTCAAATTTGTATACGACTCATATAGGGCGGCCGGAATTCGCACGAGGCGGGCGCACAC  
 CCATCCCCGCGGGCGGCGGAGCCGGCGACAGCGCGGAGAGGGACCGGGCGGTGGCGG  
 CGGCGGGACCGGGATGGAAGGGAGCGCGGTGACTGTCTTGAGCGCGGAGGGGCGAGCTC  
 GCCGGCGGAGCGCCGGAGCAAGCGGAGGCGCAGGAGCGGCGGCGACGCGCGCGGGCGG  
 CGGCGCCCGAGCACCCGAGGGGGTCCGAGCCCCGGCAGCCGGCCAGCCCCGCGCCACAAA  
 GGGAGCGCCCCCGCCCGCCGACCCCGCTCCCTCCCCAATGTCTCGGCCATCGAAAG  
 GAAGAGCCTGGACCTTCAGAGGAACCAAGTGATGAGGTGCTGCAGATCCCCCATCCCT  
 GCTGACATGCGGCGGCTGCCAGCAGAACATTGGGGACCGCTACTTCTGAAGCCATCGA  
 CCAGTACTGGCACGAGGACTGCCTGAGCTGCGACCTCTGTGGCTGCCGGCTGGGTGAGGT  
 GGGGCGGCGCCTTACTACAACTGGGCGGAAGCTCTGCCGGAGAGACTATCTCAGGCT  
 TTTTGGGCAAGACGGTCTCTGCGCATCCTGTGANCAGCGGATTCGTGCCTATGANGATGA  
 CATGCGGGTGAAGACAAGTGTATCACCTGGAATGTTTCAAGTGCGCCCTGTCAGAA  
 GCATTCTGTGTANGTGACAGATACCTCCTCATCCACTCTGACATAGTGTGCGAAACAGA  
 CATCTACGAGTGGACTAAGATCAATGGGATGATATAGGCCGAGTCCCCCGGCATCTTTG  
 GGGAGGTGTTACTGAAGACGCCTTCTCCATGGGATCTTCTCCTCACTCTTAGCACTTTG  
 GGGTTTGAAGTGGGGTAAAGGGGATTCTTAGGGTGGGGAACCTTTATGGGGTT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_005574 unedited  
 ATGGCCGCGGCCGATTCTANATCGAGTTTTTTTTTTTTTTTTTTTTCAGTCTGCATTTTT  
 ATTAAGCCTGCAGAGCTGTTTTTTTTTCTACACAGACAATACTTTGATATAATCTAG  
 GATAATAAAATAGTTGAACAACTTTTTAAGATTTATATTTGTATAGAAACAATCTGTGGA  
 ACTCCTCCCTCAAAATGAAGGTGTCTAAAACAGTGATTNTCATCAGCATTGCTTTAAA  
 TAATTGTTTGGTTAAAAGTTGTGGTTTCCATTCTCAACCGAAATGCGTCTCCATGCAAGT  
 TTCTTTGGTCCCAACTTAAGGCTTGGGAAGGGGGCCAAAGAAAAAAAAAAGATGGCCAC  
 TCTCTTTCTGCTTCCCTTGTGTGGAGGACAGTGATTGAAACAGGGGAGTTAAAAAGC  
 CAGGAAGAAAAGAAATCAATTGCACATCTCTAGTTCGCAAGCGTCAAAGTCACAACAAGT  
 CTGTACACAACAACCTCTATCTGTAGATATGAAATCCATCATGATAGCACAGCGCCTG  
 CTTGCCCTAAATGTTCCCTTCTCTGCTAATCATGTGAGTACTATGGATGGGCTGTGG  
 GCCATAAGTCTCCCTCAAGGGCTGGTCTTCTGTCACCTTGAATGTCAGCCCTGAATTA  
 TGCACCTGATGCTATGTCTGATACCCATAAGTTTACCATCCCCTAGAATCCCTACCCAC  
 CTCACCCCAAAAGTGCTAAAAGTGAGACCAGATGCATGGANCGGGTTTTAGGAACACCT  
 CCCAAGATGCGGGGACTGGGCCTTTTCATCCATGGTCTAATCACTCTAAATGTCTGTTCC  
 CCCTTTGTCAAGTGTGAGGAGGTTTTGCACTCACAAAATGCTTTGAAGGGGGCCTAAAA  
 TTCAGGGAACCTTTGTTCCCCATGTATTTATAGGCAATCCTTTTCAGGATGCAAAACCT  
 TGCCAAAATAAATTTTC

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_005574

**Insert Size:**

1600 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](mailto: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\\_005574.2](#), [NP\\_005565.1](#)

**RefSeq Size:** 2303 bp

**RefSeq ORF:** 477 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.