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# Product datasheet for RC205376

## LMO2 (NM_005574) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | LMO2 (NM_005574) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | LMO2 |
| **Synonyms:** | LMO-2; RBTN2; RBTNL1; RHOM2; TTG2 |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **Cell Selection:** | Neomycin |
| **ORF Nucleotide Sequence:** | >RC205376 representing NM_005574<br>Red=Cloning site Blue=ORF Green=Tags(s)<br><br>TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC<br>GCCGCGATCGCC<br><br>ATGTCCTCGGCCATCGAAAGGAAGAGCCTGGACCCTTCAGAGGAACCAGTGGATGAGGTGCTGCAGATCC<br>CCCCATCCCTGCTGACATGCGGCGGCTGCCAGCAGAACATTGGGGACCGCTACTTCCTGAAGGCCATCGA<br>CCAGTACTGGCACGAGGACTGCCTGAGCTGCGACCTCTGTGGCTGCCGGCTGGGTGAGGTGGGGCGGCGC<br>CTCTACTACAAACTGGGCCGGAAGCTCTGCCGGAGAGACTATCTCAGGCTTTTTGGGCAAGACGGTCTCT<br>GCGCATCCTGTGACAAGCGGATTCGTGCCTATGAGATGACAATGCGGGTGAAAGACAAAGTGTATCACCT<br>GGAATGTTTCAAGTGCGCCGCCTGTCAGAAGCATTTCTGTGTAGGTGACAGATACCTCCTCATCAACTCT<br>GACATAGTGTGCGAACAGGACATCTACGAGTGGACTAAGATCAATGGGATGATA<br><br>ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT<br>ACAAGGATGACGACGATAAGGTTTAA |
| **Protein Sequence:** | >RC205376 representing NM_005574<br>Red=Cloning site Green=Tags(s)<br><br>MSSAIERKSLDPSEEPVDEVLQIPPSLLTCGGCQQNIGDRYFLKAIDQYWHEDCLSCDLCGCRLGEVGRR<br>LYYKLGRKLCRRDYLRLFGQDGLCASCDKRIRAYEMTMRVKDKVYHLECFKCAACQKHFCVGDRYLLINS<br>DIVCEQDIYEWTKINGMI<br><br>TRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| **Chromatograms:** | https://cdn.origene.com/chromatograms/mg2975_d01.zip |
| **Restriction Sites:** | SgfI-MluI |

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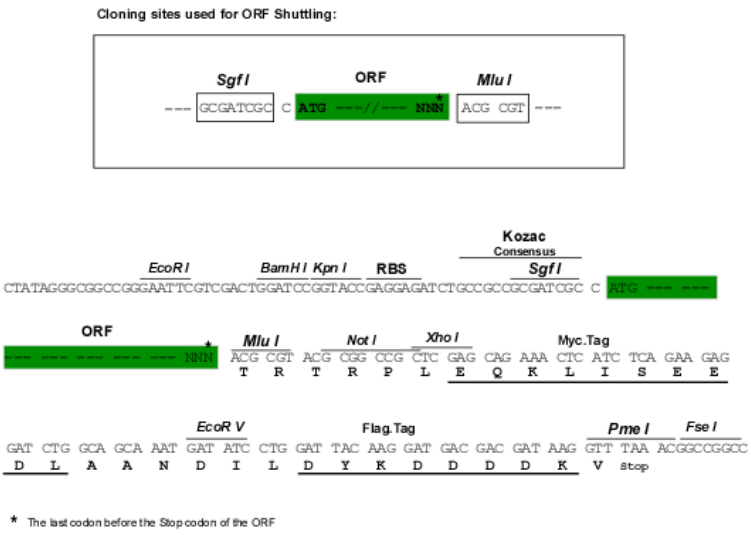
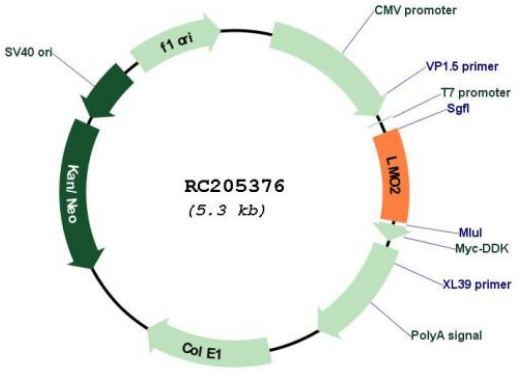
**Cloning Scheme:**




**Plasmid Map:**




**ACCN:** NM_005574

**ORF Size:** 474 bp

**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.

**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_005574.4

**RefSeq Size:** 2304 bp

**RefSeq ORF:** 684 bp

**Locus ID:** 4005

**UniProt ID:** P25791

**Cytogenetics:** 11p13

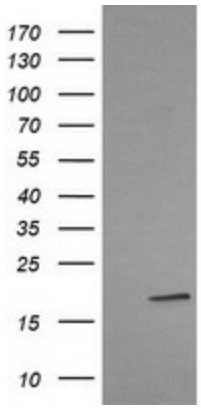
**Domains:** LIM

**Protein Families:** Druggable Genome

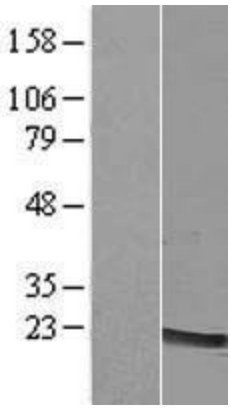
**MW:** 18.2 kDa

**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]

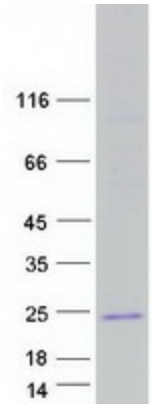
## Product images:




HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LMO2 (Cat# RC205376, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LMO2(Cat# [TA506132]). Positive lysates [LY432149] (100ug) and [LC432149] (20ug) can be purchased separately from OriGene.




Western blot validation of overexpression lysate (Cat# [LY428034]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226864] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).




Coomassie blue staining of purified LMO2 protein (Cat# [TP305376]). The protein was produced from HEK293T cells transfected with LMO2 cDNA clone (Cat# RC205376) using MegaTran 2.0 (Cat# [TT210002]).