

## Product datasheet for **MR226275**

### Lrp8 (NM\_001080926) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lrp8 (NM_001080926) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lrp8
Synonyms:	4932703M08Rik; AA921429; AI848122; ApoER2; Lr8b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR226275 representing NM\_001080926  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGGCCGCCAGAACTGGGCGCGCTCCGGCCGCTGGCGCTGTTGCTGTTGCTGCTGCTGCAGTTCAGC  
 ATCTCTCCGCAGCGGATCCGCTGCCGGCGGCCAAGGGCCAGTCAAGGAGTGTGAAGAGGACCAGTTTCG  
 GTGTCCGAACGAGCGCTGCATTCCTTGGTGTGGAGATGCGATGAGGACAACGACTGCTCGGACAACAGC  
 GACGAGGACGACTGCCCAAGAGGACCTGCGCGGACAGCGACTTCACCTGTGACAATGGCCACTGCATCC  
 CAGAGCGGTGGAAGTGCACGCGGAGGAGGAGTGTCCCGATGGCTCTGACGAATCGAAGGCCACGTGCTC  
 CAGTGAAGAGTGTCTGCCGAGAAGTTAAGCTGCGGACCCACCAGCCACAAGTGTGTGCCTGCCTCATGG  
 CGCTGCGACGGAGAGAAGGACTGTGAGGGTGGTGTGACGAGGCCGGCTGCCACCTCAGCACCAGGAC  
 CCTGCCCGGAGAATGAGTTCAGTGTGGGGATGGGACTTGCCTTCCATCAAACGGTGAACCCAGGA  
 GCGGGACTGCCCGACGGGAGTGAAGAAGCGGGTGCCTTCAGGAGTCAACTTGTGAGGGTCCCGCAGA  
 TTTCAAGTGAAGAGTGGCGAGTGCCTGGACGGCGGAAAGTGTGTGATGATCAGAGGGACTGCCGGGACT  
 GGTCCGGATGAGCCTCAGAAAGTGTGTGGCTAAATGAGTGTCTGCACAATAACGGCGGCTGTTCCACAT  
 CTGCACTGACCTCAAGATCGGCTTTGAGTGCACGTGCCAGCAGGCTTCCAGCTCTTGACCAGAAGACC  
 TGTGGTGACATTGATGAATGCCAGGACCCGGATGCCTGCAGCCAAATCTGCGTGAATTACAAGGGCTACT  
 TTAAGTGTGAATGCCACCCTGGCTATGAGATGGATACACTGACCAAGAAGTCAAAGCTGTAGCCGGCAA  
 GAGCCCATCTCTGATCTTACGAACCGACAGGAGTGGGAGGATAGACCTGGTGAAGCGGGACTACTCG  
 CGCCTCATCCCATGCTCAAGAATGTCGTGGCGCTGGAGTGAAGTAGCCACCAATCGCATATACTGGT  
 GCGACTCTCTACCGCAAGATCTACAGCGCCACATGGACAAGGCCAGCATCCCGGAGGAGTGGTGGT  
 CCTCATTGATGAGCAGCTGCACTCCCGGAGGGCTGGCGGTGGACTGGTCCATAAGCACATCTACTGG  
 ACAGACTCAGGCAATAAGACCATCTCAGTGCCACAACCGATGGACGCCCGCGTACTCTCTTACGCC  
 GTGAGCTCAGTGAGCCCCGAGCCATTGCCGTTGACCCCTGCGAGGGTTCATGTACTGGTGTGACTGGGG  
 TTTCCAGGCAAAGATTGAGAAGGCTGGGCTCAATGGTGCAGACCGCAAACACTGGTTTCAGACAACATT  
 GAATGGCCCAATGGAATCACCTGGACTTGTGAGCCAGCGTTTGTACTGGTGGACTCCAAGCTGCACC  
 AACTATCCAGCATTGACTTCAATGGAGGCAACAGAAAGATGCTGATCTTCTCCACTGACTTCTGAGTCA  
 CCCTTTGGGGTGTGTATTTGAGGACAAGGTATTCTGGACAGACCTGGAGAATGAGGCCATTTTCAGC  
 GCAAAATCGGCTCAATGGCCTGGAATCGCCATCCTGGCCGAGAACCTCAATAACCCACATGACATTGTAA  
 TCTTCCACGAGCTGAAGCAGCCAAAGGCTGCAGATGCCTGTGACCTGAGTGCCAGCCCAACGGCGGCTG  
 TGAATACCTGTGCCTTCTGCTCCTCAAATCTCCAGCCACTCCCCCAAGTACACGTGTGCCTGCTCCTGAC  
 ACGATGTGGCTGGGCCAGACATGAAGAGATGCTACCGAGCACCTCAGTCTACCTCAACTACAACCTTAG  
 CCTCTGCCATGACAAGGACAGTACCTGCTACCACAAGAGCTCCTGGGACAACCATCCACGACCCTACCTA  
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 CCCAGCACCAGCCATCCACCCGAGCCCTGCTACCAGCAACCACTCCAGCATTATGGGAATGAAGGCA  
 GCCAGATGGGCTCAACAGTCAACCGCTGCTGATTGGGGTTCATCGTCCCATAGTGGTAAATAGCCCTGCT  
 ATGTATGAGTGGTACCTCATCTGGAGGAAGTGAAGCGGAAGAACAACCAAGAGCATGAATTTGACAAC  
 CCAGTGTACAGGAAAACGACAGAAGAGGAAGAGGAAGATGAGCTTACATAGGGAGGACAGCTCAGATTG  
 GCCACGCTACCCCGCAGCAATCAGCAACTATGATCGCCACTGTGGGCAGAGCCCTGCTTGGGGAGAC  
 CAGAGACCTGGAAGACCCAGCCCTGCCCTCAAGGAGCTTTTTGTCTTGGCGGGAGAACCAAGGTACAG  
 CTTCAACCAACTCCGAAGAACCCTTTTCCGAGCTGCCTGCTGCAAGTGAAGCGAGTGGCATTAAAGTC  
 TTGAAGATGATGGACTGCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR226275 representing NM\_001080926  
 Red=Cloning site Green=Tags(s)

MGRPEL GALRPLALLLLLLLQLQHL SAADPL PGGQGPVKECEEDQFRCRNERCIPLVWRCEEDNDSCSDNS  
 DEDDCPKRTCADSDFTCDNGHCIPERWKCDGEEECPDGSDSKATCSSEECPAEKLSCGPTSHKCVPASW  
 RCDGEKDCEGGADEAGCPTSAPGPCRENEFQCGDGTCLVAIKRCNQERDCPDGSDAEGCLQESTCEGPRR  
 FQCKSGECVDGGKVCDDQRDCRDWSEDPQKVCGLNECLHNNGGCSHICTDLKIGFECTCPAGFQLLDQKT  
 CGDIDECQDPDACSQICVNYKGYFKCECHPGYEMDTLTKNCKAVAGKSPSLIFITNRHEVRRIDLVKRDYS  
 RLIPMLKNVVALDVEVATNRIYWCDSL SYRKIYSAHMDKASIPDEQVVL IDEQLHSPEGLAVDWHKHIIYW  
 TDSGNKTI SVATTDGRRRCTLFSRELSEPRAI AVDPLRGFMYSWDWGFQAKIEKAGLNGADRQTLVSDNI  
 EWPNGITLDLLSQRL YWVDSKHLQLSSIDFNGGNRKM LIFSTDFLSHPFGVAVFEDKVFWDLENEAIFS  
 ANRLNGLEIA ILAENLNPHDIVIFHELKQPKAADACDL SAQPNGGCEYLCLPAPQISSHSPKYTCACPD  
 TMWLGPMKRCYRAPQSTSTTTLASAMTRTPATTRAPGTIIHDPTYQNHSTETPSQTAAAPHSVNVVPR  
 PSTSPSTPSPATSNHSQHYGNEGSQMGSTVTA AVIGVIVPIVVIALLCMSGYLIWRNWKRKNTKSMNFDN  
 PVYRKTTEEEEEDELHIGRTAQIGHVYPA AISNYDRPLWAEPCLGETRDLEDPAPALKELFVLPGEPRSQ  
 LHQLPKNPLSELVVKCKRVALSLEDDGLP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mm9008\\_b05.zip](https://cdn.origene.com/chromatograms/mm9008_b05.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



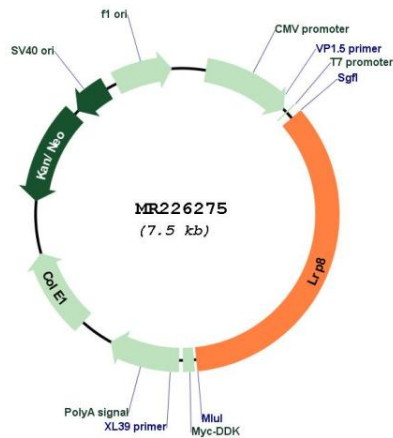
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_001080926
<b>ORF Size:</b>	2610 bp
<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001080926.1</a> , <a href="#">NP_001074395.1</a>
<b>RefSeq Size:</b>	7296 bp
<b>RefSeq ORF:</b>	2613 bp
<b>Locus ID:</b>	16975
<b>Cytogenetics:</b>	4 C7
<b>MW:</b>	96.8 kDa

**Gene Summary:**

Cell surface receptor for Reelin (RELN) and apolipoprotein E (apoE)-containing ligands. LRP8 participates in transmitting the extracellular Reelin signal to intracellular signaling processes, by binding to DAB1 on its cytoplasmic tail. Reelin acts via both the VLDL receptor (VLDLR) and LRP8 to regulate DAB1 tyrosine phosphorylation and microtubule function in neurons. LRP8 has higher affinity for Reelin than VLDLR. LRP8 is thus a key component of the Reelin pathway which governs neuronal layering of the forebrain during embryonic brain development. Binds the endoplasmic reticulum resident receptor-associated protein (RAP). Binds dimers of beta 2-glycoprotein I and may be involved in the suppression of platelet aggregation in the vasculature. Highly expressed in the initial segment of the epididymis, where it affects the functional expression of clusterin and phospholipid hydroperoxide glutathione peroxidase (PHGPx), two proteins required for sperm maturation (PubMed:12695510). May also function as an endocytic receptor. Not required for endocytic uptake of SEPP1 in the kidney which is mediated by LRP2 (PubMed:18174160). Together with its ligand, apolipoprotein E (apoE), may indirectly play a role in the suppression of the innate immune response by controlling the survival of myeloid-derived suppressor cells (PubMed:29336888).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR226275