

Product datasheet for **MR222184**

Lrp4 (NM_001145857) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lrp4 (NM_001145857) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lrp4
Synonyms:	6430526J12Rik; D230026E03; mdig; Megf7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR222184 representing NM_001145857
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGGCGGTGGTGGGGCGCTGCTGCTTGGCGCCCTGCTCTGCGCACACGGAATAGCCAGCAGTCTGG
 AGTGTGCATGTGGTTCGGAGCCACTTCACATGTGCGGTGAGCGCGCTTGGCGAATGTACCTGTATCCCCGC
 CCAGTGGCAGTGTGATGGAGACAATGACTGTGGAGACCACAGCGATGAGGATGGCTGTACCTGCCTACC
 TGCTCCCCCTGGACTTCCACTGTGACAACGGCAAGTGCATCCGACGCTCCTGGGTGTGTGACGGGGACA
 ATGACTGTGAAGATGACTCTGATGAGCAGGACTGTCCCCCGGGAGTGTGAGGAGGACGAATCCCTG
 CCAGAACGGCTACTGCATTCGGAGTCTGTGGCACTGTGATGGGGACAACGACTGTGGTGCACAACAGTGC
 GAGCAATGCGACATGCGCAAGTGTCTCAGACAAGGAATCCGCTGCAGCGACGGCAGCTGCATTGCTGAGC
 ATTTGGTACTGCGATGGTGCACAGACTGCAAAGATGGCTCTGATGAGGAAAGCTGCCCTCAGCAGTACC
 CTCTCCTCCTTGAACCTGGAAGAGTTCAGTGCCTATGGCCGCTGCATCCTCGACATCTACCACTGT
 GACGGAGATGACGACTGTGGAGACTGGTCAAGAGTCTGACTGCTCCTCCACAGCCCTGCCGCTCTG
 GGAATTCATGTGTGACAGTGGCCTGTGCATCAACTCGGGCTGGCGCTGTGATGGTGTGACAGACTGTGA
 TGACAGTCTGATGAACGCAACTGCACCACCTCCATGTGCACAGCCGAACAGTTTCGCTGTCCGGTACGGC
 CGTTGGTCCGCTGTCTCGGCGTGTGATGGGGAGGATGACTGTGCGGACAACAGCGATGAAGAAAAC
 GTGAGAACACAGGAAGCCCCAGTGCCTCTGACCACTTCTGTGTGGAACGGGCGCTGATTGGGCA
 GAGGAAGTGTGCAACGGGATCAACGACTGCGGTGACAGCAGTGCAGAAAGTCCACAGCAGAAGTGTCCG
 CCCCAGCGGTGAGGAGAACTGCAATGTTAACACGGTGGCTGTGCCAGAAAGTGTGATGGTGGCAG
 GGGCAGTGCAGTGTACCTGCCACACAGGCTACCGGCTCACAGAGGATGGGAGAAGTGTCCAGGATGTA
 CGAATGTGCTGAGGAGGGTACTGCAGCCAGGGCTGCACAACACTGAAGGGGCTTCCAGTGTGGTGT
 GAAGCAGGTATGAGCTACGGCCGATCGGCGCAGCTGCAAGCTCTGGGGCCAGAACCTGTGCTACTGT
 TTGCCAATCGTATCGACATCCGGCAGGTGCTCCCGCACCCTCCGAGTACACGCTGCTACTGAACAACCT
 GGAGAACGCCATTGCCCTCGACTTTCATCACCGCGGGAGCTGGTCTTCTGGTGGATGTACCCTGGAC
 CGCATCTCCGTGCCAACCTAATGGCAGCAATGTAGAGGAGTGGTGTCTACTGGGCTAGAGAGCCAG
 GTAGGAAAACAAGGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR222184 representing NM_001145857
 Red=Cloning site Green=Tags(s)

MRRWWGALLL GALLCAHGIASSLEACGRSHFTCAVSALGECTCIPAQWQCDGDNDCGDHSDEDEGCTLPT
 CSPLDFHCDNGKCI RRSWVCDGDNDCEDDSEQDCPPRECEDEFPCQNGYCI RSLWHCDGDNDCGDNDSD
 EQCDMRKCS DKEFRCS DGS CIAEHWYCDGDT DCKDGSDEESCP SAVSPPCNLEEFQ CAYGR CILDIYHC
 DGDDDCGDWSDSDCSSHQPCRS GFMCDSGLC INSGWRCDGDADCDDQSDERNCTTSMCTAEQFRCSG
 RCVRLSWRCDGEDDCADNSDEENCENTGSPQCADSQFLCWNGRCIGQRKLCNGINDCGDSSDESPQQNCR
 PRTGEENCNVNNGGAQKQCMVRGAVQCTCHTGYRLTEDGRTCQDVNECAEEGYCSQGCTNTEGAFQCWC
 EAGYELRPDRRSCKALGPEPVLLFANRIDIRQVLP HRSEY TLLLNNLENAIALDFHHRREL VFWSDVTL D
 RILRANLNGSNVEEVVSTGLESPGRKTRP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001145857

ORF Size: 1557 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_001145857.1](#), [NP_001139329.1](#)

RefSeq Size: 3246 bp

RefSeq ORF: 1560 bp

Locus ID: 228357

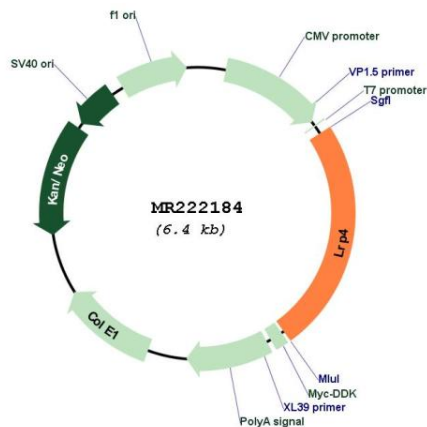
UniProt ID: [Q8VI56](#)

Cytogenetics: 2 50.63 cM

MW: 58.1 kDa

Gene Summary: Mediates SOST-dependent inhibition of bone formation. Functions as a specific facilitator of SOST-mediated inhibition of Wnt signaling. Plays a key role in the formation and the maintenance of the neuromuscular junction (NMJ), the synapse between motor neuron and skeletal muscle. Directly binds AGRIN and recruits it to the MUSK signaling complex. Mediates the AGRIN-induced phosphorylation of MUSK, the kinase of the complex. The activation of MUSK in myotubes induces the formation of NMJ by regulating different processes including the transcription of specific genes and the clustering of AChR in the postsynaptic membrane. Alternatively, may be involved in the negative regulation of the canonical Wnt signaling pathway, being able to antagonize the LRP6-mediated activation of this pathway. More generally, has been proposed to function as a cell surface endocytic receptor binding and internalizing extracellular ligands for degradation by lysosomes. Plays an essential role in the process of digit differentiation (PubMed:16517118).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR222184