OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR212054

Lrp5 (NM_008513) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lrp5 (NM_008513) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lrp5
Synonyms:	BMND1; HBM; LR3; LRP7; mKIAA4142; OPPG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR212054 representing NM_008513
Red=Cloning site Blue=ORF Green=Tags(s)

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GCCGCGATCGCC

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AGAGATCGGCATGTCCTGGTGAACACCTCCCTTGGGTGGCCCAACGGACTGGCCCTGGACCTGCAGGAGG
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Protein Sequence:

>MR212054 representing NM_008513
Red=Cloning site Green=Tags(s)

METAPTRAPPPPPPPLLLLVLYCSLVPAAASPLLLFANRRDVRLVDAGGVKLESTIVASGLEDAAAVDFQ
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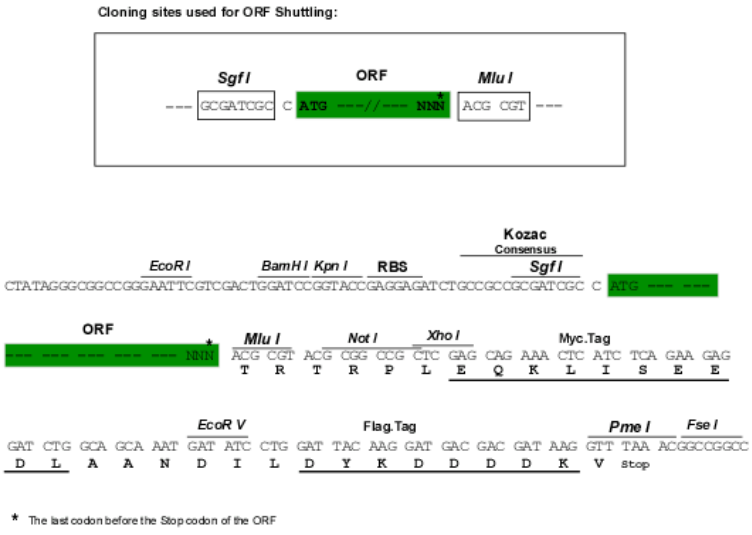
Chromatograms: https://cdn.origene.com/chromatograms/mm9011_c07.zip

Restriction Sites: SgfI-MluI

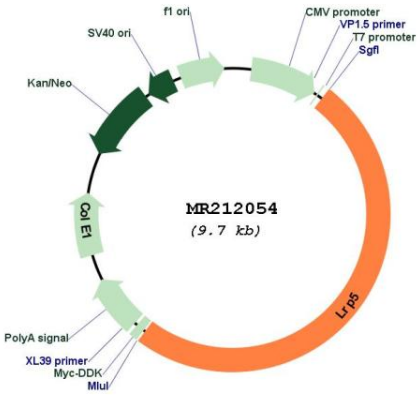
Cloning Scheme:



ACCN:	NM_008513
ORF Size:	4842 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_008513.3, NP_032539.2
RefSeq Size:	5172 bp
RefSeq ORF:	4845 bp
Locus ID:	16973
UniProt ID:	Q91VN0
Cytogenetics:	19 A
MW:	179.3 kDa

Gene Summary: Acts as a coreceptor with members of the frizzled family of seven-transmembrane spanning receptors to transduce signal by Wnt proteins. Activates the canonical Wnt signaling pathway that controls cell fate determination and self-renewal during embryonic development and adult tissue regeneration (PubMed:11956231). In particular, may play an important role in the development of the posterior patterning of the epiblast during gastrulation (PubMed:15142971). During bone development, regulates osteoblast proliferation and differentiation thus determining bone mass (PubMed:11956231). Mechanistically, the formation of the signaling complex between Wnt ligand, frizzled receptor and LRP5 coreceptor promotes the recruitment of AXIN1 to LRP5, stabilizing beta-catenin/CTNNB1 and activating TCF/LEF-mediated transcriptional programs (By similarity). Acts as a coreceptor for non-Wnt proteins, such as norrin/NDP. Binding of norrin/NDP to frizzled 4/FZD4-LRP5 receptor complex triggers beta-catenin/CTNNB1-dependent signaling known to be required for retinal vascular development (By similarity). Plays a role in controlling postnatal vascular regression in retina via macrophage-induced endothelial cell apoptosis (PubMed:11956231). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR212054