

## Product datasheet for MR204650

### Lgals9 (NM\_001159301) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lgals9 (NM_001159301) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lgals9
Synonyms:	AA407335; AI194909; AI265545; gal-9; galectin-9; Lgals5; LGALS35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR204650 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTCTCTTCAGTGCCAGTCTCCATACATTAAACCGATCATCCCCTTACTGGACCAATCCAAGGAG  
GGCTGCAGGAGGGACTTCAGGTGACCCTCCAGGGGACTACCAAGAGTTTTGCACAAAGTTTTGTGGTGAA  
CTTTCAGAACAGCTTCAATGAAATGACATTGCCTTCCACTTCAACCCCGGTTTGAGGAAGGAGGGTAT  
GTGGTTTGCAACACGAAGCAGAACGGACAGTGGGGCCCTGAGGAGAGAAAGATGCAGATGCCCTTCCAGA  
AGGGGATGCCCTTTGAGCTTTGCTTCTCGTGCAGAGGTCAGAGTCAAGGTGATGGTGAACAAGAAATT  
CTTTGTGCAGTACCAACACCGCGTACCCTACCACCTCGTGGACACCATCGCTGTCTCCGGCTGCTTGAAG  
CTGTCCCTTATACCTTCCAGACTCAGGACTTTCTGTCCTGCCACCAGGCACCCATGGCTCAAACCTACCA  
TCCATATGGTTACAGCACCCCTGGACAGATGTTCTCTACTCCTGGAATCCCTCCTGTGGTGTACCCAC  
CCCAGCCTATACCATACCTTTCTACACCCCATTCAAATGGGCTTTACCCGTCCAAGTCCATCATGATA  
TCAGGCAATGTCTTGCCAGATGCTACGAGGTTCCATATCAACCTTCGCTGTGGAGGTGACATTGCTTTCC  
ACCTGAACCCCGTTTCAATGAGAATGCTGTTGTCCGAAACACTCAGATCAACAACCTCTGGGGGCAGGA  
AGAGCGAAGTCTGCTTGGGAGGATGCCCTTCAGTCGAGGCCAGAGCTTCTCGGTGGATCATATGCGAA  
GGTCACTGCTTCAAGGTGGCTGTGAATGGTCAACACATGTGTGAATATTACCACCGCTGAAGAACTTGC  
AGGATATCAACACTCTAGAAGTGCGGGTGATATCCAGCTGACCCACGTGCAGACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR204650 protein sequence  
Red=Cloning site Green=Tags(s)

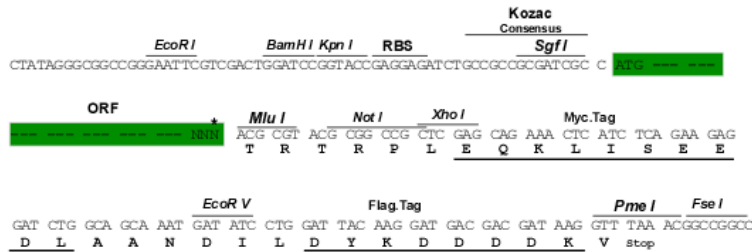
MALFSAQSPYINPIIPFTGPIQGGLEGLQVTLQGTTKSFAQRFVVFQNSFNGNDIAFHFNPRFEEGGY  
VVCNTKQNGQWGPEERKMMPFQKGMPEL CFLVQRSEFKVMVNKFFVQYQHRVPYHLVDTIIVSGCLK  
LSFITFQTQDFRPAHQAPMAQTTIHMVHSTPGQMFSTPGIPPVVYPTPAYTIPFYTIPNGLYPSKSIMI  
SGNVLPDATTRFHINLRCCGGDIAFHNLNPRFNENAVVRNTQINNSWGQEERSLLGRMPFSRQQSFSVWIICE  
GHCFKVAVNGQHMCEYYHRLKNLQDINTLEVAGDIQLTHVQT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001159301

**ORF Size:** 969 bp

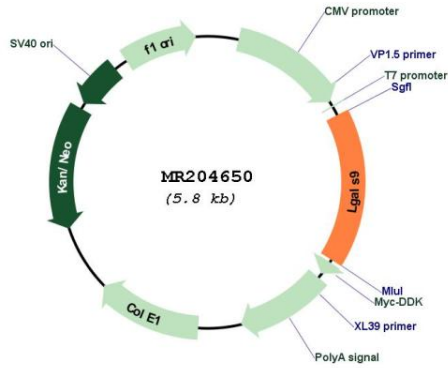
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>	<u><a href="#">NM_001159301.1</a></u> , <u><a href="#">NP_001152773.1</a></u>
<b>RefSeq Size:</b>	1493 bp
<b>RefSeq ORF:</b>	969 bp
<b>Locus ID:</b>	16859
<b>UniProt ID:</b>	<u><a href="#">O08573</a></u>
<b>Cytogenetics:</b>	11 B5
<b>MW:</b>	36.5 kDa
<b>Gene Summary:</b>	<p>Binds galactosides (By similarity). Has high affinity for the Forssman pentasaccharide (By similarity). Ligand for HAVCR2/TIM3 (By similarity). Binding to HAVCR2 induces T-helper type 1 lymphocyte (Th1) death (By similarity). Also stimulates bactericidal activity in infected macrophages by causing macrophage activation and IL1B secretion which restricts intracellular bacterial growth (PubMed:20937702). Ligand for P4HB; the interaction retains P4HB at the cell surface of Th2 T-helper cells, increasing disulfide reductase activity at the plasma membrane, altering the plasma membrane redox state and enhancing cell migration (PubMed:21670307). Ligand for CD44; the interaction enhances binding of SMAD3 to the FOXP3 promoter, leading to up-regulation of FOXP3 expression and increased induced regulatory T (iTreg) cell stability and suppressive function (PubMed:25065622). Promotes ability of mesenchymal stromal cells to suppress T-cell proliferation (By similarity). Expands regulatory T-cells and induces cytotoxic T-cell apoptosis following virus infection (By similarity). Activates ERK1/2 phosphorylation inducing cytokine (IL-6, IL-8, IL-12) and chemokine (CCL2) production in mast and dendritic cells (By similarity). Inhibits degranulation and induces apoptosis of mast cells (By similarity). Induces maturation and migration of dendritic cells (By similarity). Inhibits natural killer (NK) cell function (PubMed:23408620). Can transform NK cell phenotype from peripheral to decidual during pregnancy (By similarity). Astrocyte derived galectin-9 enhances microglial TNF production (PubMed:25158758). May play a role in thymocyte-epithelial interactions relevant to the biology of the thymus. May provide the molecular basis for urate flux across cell membranes, allowing urate that is formed during purine metabolism to efflux from cells and serving as an electrogenic transporter that plays an important role in renal and gastrointestinal urate excretion (By similarity). Highly selective to the anion urate (By similarity).[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR204650