

## Product datasheet for **MG214018**

### Dlg5 (NM\_027726) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Dlg5 (NM_027726) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Dlg5
Synonyms:	4933429D20Rik; mKIAA0583; T25557
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG214018 representing NM_027726 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCCGACGCGCGGGAGCTGCTCGCCAGTGTGTCAGCAGAGCCTGGCCAGGCCATGACCGAGGTGG  
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CAGGAAGCAGACGTGGCCAAGTGCCGGCGGGACTGGGCCTTTCAGGAGCGGGACAAGATTGTGGCAGAGC  
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG214018 representing NM\_027726  
 Red=Cloning site Green=Tags(s)

MEPQRRELLAQCCQSLAQAMTEVEAVLGLLEAAGALSPGERRQLDEEAGGAKAELLQLLLAKEQDHFQD  
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 LNSFRSDTSAERGYGLVDMRSQRPLL SFETE VGP CGAVEVPLDKIDPEGSNSGGTWPKA  
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 SSSCQPTTASTLPRIAVNPSSHGERRKDRPFVEEPRHVK VQK GSEPLGISIVSGEKG  
 VYVSKVTLGSHIAHQAGLEYGDQLLEFNGINLRSATEQQARLIIGQQCDTITI LAQYN  
 PHIHQLNSHSRSSHLDPAATPHSTLQGSSAGTPEHPSVIDPLMEQDEGPTPPAKQSAS  
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 ILEYGSLDMRSRTV EDVYVEMLKPKDSLRLK VQYRHEEFTRVKGLPGDSFYIRALYDRLA  
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 SRRLSMSEVKDDNTAKTLSAAARRSFFRRKHKHKRSGSK DGKDLLALDTFSNDSIPL  
 FEDSVSLAYQVQKVDCTSLRPVLLLGPLLDVVKEMLVNEAPGKFCRCPLEV MKASQQA  
 IERGVKDCLFVDYKRRSGHFVTTVASIKEITEKNRHCLLDIAPHAIERLHHMHYIPIVIFIR  
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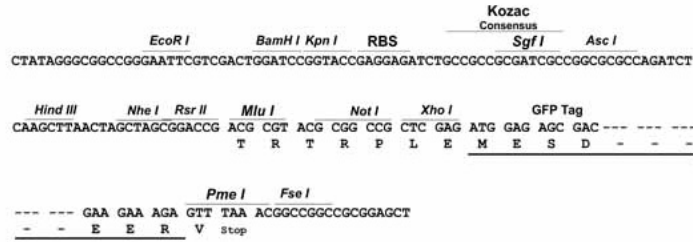
TRTRPLE - GFP Tag - V

**Restriction Sites:**

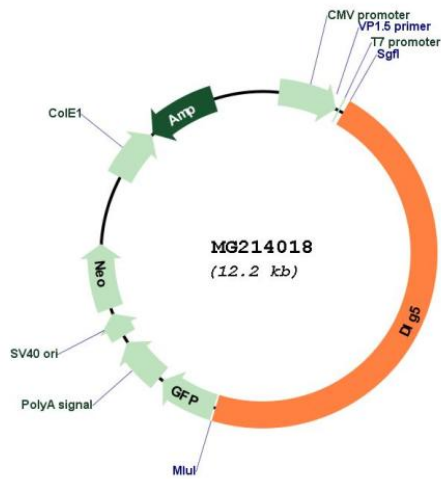
Sgfl-Mlul

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



ACCN: NM\_027726  
 ORF Size: 5694 bp

<b>OTI Disclaimer:</b>	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>
<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_027726.1</a> , <a href="#">NP_082002.1</a>
<b>RefSeq Size:</b>	7809 bp
<b>RefSeq ORF:</b>	5697 bp
<b>Locus ID:</b>	71228
<b>UniProt ID:</b>	<a href="#">E9Q9R9</a>
<b>Cytogenetics:</b>	14 A3
<b>Gene Summary:</b>	Acts as a regulator of the Hippo signaling pathway. Negatively regulates the Hippo signaling pathway by mediating the interaction of MARK3 with STK3/4, bringing them together to promote MARK3-dependent hyperphosphorylation and inactivation of STK3 kinase activity toward LATS1 (PubMed:28087714). Positively regulates the Hippo signaling by mediating the interaction of SCRIB with STK4/MST1 and LATS1 which is important for the activation of the Hippo signaling pathway. Involved in regulating cell proliferation, maintenance of epithelial polarity, epithelial-mesenchymal transition (EMT), cell migration and invasion (By similarity). Plays an important role in dendritic spine formation and synaptogenesis in cortical neurons; regulates synaptogenesis by enhancing the cell surface localization of N-cadherin (PubMed:25232112). Acts as a positive regulator of hedgehog (Hh) signaling pathway. Plays a critical role in the early point of the SMO activity cycle by interacting with SMO at the ciliary base to induce the accumulation of KIF7 and GLI2 at the ciliary tip for GLI2 activation (PubMed:25644602).[UniProtKB/Swiss-Prot Function]