

## Product datasheet for **MG210581**

### Plcd4 (NM\_001081456) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Plcd4 (NM_001081456) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Plcd4
Synonyms:	4921507K24Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG210581 representing NM\_001081456  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGACATCTCAGATTCAAGACCTACTAGCCACTGATCAGGACCTGCTGCTGATGCAAGAAGGCACAATGA  
 TGCGCAAGGTGAGGACCAAAAGCTGGAAGAAGCTAAGATACTTCAGACTTCAGAATGACGGCATGACAGT  
 CTGGCATGGAAGTCAACCAGAAAGCATGCCAAGCCCACTTTTTCGATCTCTGATGTGGAGAGGATACGT  
 AAGGGGCAGGATTCTGAGTTGTTGCGCTATCTGGTGGAGGAGTTTCCCCTGGAGCAAGGGTTACCGTTG  
 TCTTTCATGGGCGCCGCCAACCTGGACCTAGTGCCAACAGTGTGAAGAGGCCAGATTTGGATGCG  
 AGGACTCCAGCTGTTGGTGGATCTTGTGCCAGCATGGACCACCAGGAGCAAATGGATCAAATGTTGAAT  
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 AACAGAAAGAAAAGACCATGCTCCTGACCTCGCTCTGGAACCTATTGACCGCTATGAGCCTTCTGAGAA  
 TGGCCGATTGCTGCATGTGCTGAGCAAGGATGGCTTCCCTCAAGTACCTCTGCTCGAAGGATGAAACATC  
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 CCCTGAGTTGGACTCAACCTCAGCCTGAGACCCAGGGCAGGCCGCTGGGAACAAGAAGGAGAGGAAG  
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 GGACTGTCCCCTTCTGCAGCTTCACTATTCCAAAGAAAACCTACCACATCTATGACATTTTCACTTTTC  
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 GCTGCCAGATGGTGGCTATGAATATGCAGACTGCAGGAAGTGCAATGGATATCTGTGATGGGCTCTCCG  
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 TATTTCCGGCTCCAGGTACCTGAACCTTGTATGTTGCGTTTTGTGGTAAAGGATTATAGCAGGAAATCCC  
 GAAATAACTTTATTGGCCAATACACCCTACCTTGACCTGTATGAAACAAGGCTACCGACATGTATCCTT  
 GCTCTCCAGAGATGGCACTAGCCTCAATCCAGCTTCCATCTTTGTATACACCTGCATGCAGGAAGACCTG  
 GATATGGATGAGCCC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >MG210581 representing NM\_001081456  
Red=Cloning site Green=Tags(s)

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MTSQIQDLLATDQDLLLMQEGTMMRKVRTKSWKKLRYFRLQNDGMTVWHGSQPESMPKPTFSISDVERIR
KGQDSELLRYLVEEFLEQGFVVFHGRRPNLDLVANSVEEAQIWMRGLQLLVDLVASMDHQEQMDQMLN
EWFQQADRNQDGRMSFREAQRLLLLMNVEMDEEYAFSLFQEADVTQSDDLGSEEFVQFYKALTKRTEIEE
IFEDFSSDKQKLTLLEFVDFLRKEQKEKDHPDLALELIDRYEPSENGRLLHVLKDGFLKYLCSKDGNI
FNSDCLPIYQDMTQPLSHYYINSSHNTYLQDQLCGQSSVEGYIRALKRGCRCVEVDTWDGPDGEPVYH
GHTLTSRILFKDVLATLAQYALQSSDYPLILSLENHCTWEQQRMAHHLTEILGEQLLRNTLEGLLVDSM
PSPEQLRGKILVKGKKLRTIEVDKEEEEEEEEELEKDEGPDLDPASPELDTQPQPETQQAAGNKKERK
KKFLLLSSTTIMCPDLSALVVYLRTVPFCSTHSKENYHIYDISSFSESKAKNLKEAGNEFVQHNARQL
CCVYPSGLRTDSSNFPQEHWNVGCQMVAMNMQTAGSAMDCDGLFRQNGSGYVLKPEFLRDTQSSFNP
ERPISLYKAQILVVQVLSGQQLPKVDKTKETTVDPLVKVELYGVPEDTKEQETSHVENNGINPYWGETF
YFRLQVPELAMLRVVKDYSRKSRNFIQYTLPWTCMKQGYRHVSLLSRDGTSLNPAISIFYVTCMQEDL
DMDEP
    
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001081456

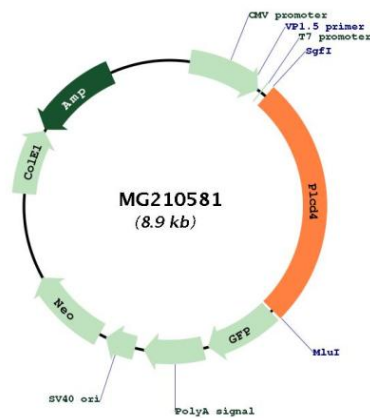
**ORF Size:** 2325 bp

**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\\_001081456.1](#), [NP\\_001074925.1](#)
- RefSeq Size:** 2734 bp
- RefSeq ORF:** 2328 bp
- Locus ID:** 18802
- UniProt ID:** [Q8K3R3](#)
- Cytogenetics:** 1 38.54 cM
- Gene Summary:** Hydrolyzes the phosphatidylinositol 4,5-bisphosphate (PIP2) to generate 2 second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). DAG mediates the activation of protein kinase C (PKC), while IP3 releases Ca(2+) from intracellular stores. Required for acrosome reaction in sperm during fertilization, probably by acting as an important enzyme for intracellular Ca(2+) mobilization in the zona pellucida-induced acrosome reaction. May play a role in cell growth. Modulates the liver regeneration in cooperation with nuclear PKC. Overexpression up-regulates the Erk signaling pathway and proliferation.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG210581