

## Product datasheet for **MR208959**

### **Ppp1r16b (NM\_001159662) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ppp1r16b (NM_001159662) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ppp1r16b
Synonyms:	ANKRD4; C130078N17Rik; TIMAP; Wdt4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR208959 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGCCAGCCACGTGGACCTGCTCACAGAGCTGCAGCTGCTGGAGAAGGTCCTACGCTGGAGCGCCTGC  
 GCGCAGCCAGAAGCGCCGGCTCAGCAGCTGAAGAAGTGGGCACAGTACGAGCAGGACCTGCTTATCG  
 CAAGCGCAAGCATGAGCGGAAGCGCAGCACGGGTGGACGTCGCAAGAAGTGTCTTTCGAGGCCAGTGTA  
 GCGTTGCTGGAAGCCTCACTGAGGAATGACGCCGAAGAAGTTCGTACTTCTCTGAAGAACAAGTTAGCC  
 CTGATTTGTGCAATGAGGATGGACTTACAGCCTTGCACCAGTGTGCATTGACAACCTTGAAGAGATTGT  
 CAAGCTGCTGCTGCCACGGTGCAGCTGAATGCCAAGGACAACGAGCTGTGGACGCCCTGCACGCG  
 GCAGCCACCTGCGGCCACATCAACCTGGTGAAGATCCTCGTTCAGTATGGGGCTGACTTGCTTGTGTCA  
 ACTCTGATGGAACATGCCATATGACCTCTGCGAGGATGAACCCACCCTGGATGTCATCGAGACCTGCAT  
 GGCATACCAAGGCATCACACAGGAGAAAATCAACGAGATGCGAGCAGCCCCTGAGCAGAAGATGATTTCA  
 GACATCCACTGCATGATAGCAGCGGGCCAGGATCTCGACTGGATCGATGGCCAGGGTGCCACACTGCTAC  
 ACATAGCTGGAGCCAATGGATATCTGCGAGCAGCCGAGCTCCTCCTGGACCATGGAGTGCCTGTGGATGT  
 GAAGGACTGGGATGGCTGGGAGCCTCTGCATGCAGCAGCCTTCTGGGGACAGATGCCAATGGCAGAGCTG  
 CTGGTGTCCCATGGAGCTAGTCTCAGTGCAGGACATCCATGGATGAGATGCCAATAGACCTGTGTGAGG  
 AGGAGGAATCAAGTCTGTGTTGGAGCTGAAACACAAGCATGATGTGATCATGAAGTCGCAGCTGAG  
 GCACAAGTCGTCCTGAGCCGGAGGACATCCAGCGCGGCAGCCGTGGGAAGTGGTGCCTGAGCCAGC  
 CTGTGAGCAGAACCAATCTATACCGGAAAGAATGAGGGCGAGGCCATCTTGTGGCAGCAGCGGAGTG  
 CAGCTGAGGACCAGCGGACTTCAACCTACAATGGAGACATCAGGGAGACCAGGACAGACCAGGAACAA  
 GGACCCGAACCCAGGCTGGAGAAGCCCGTGTGCTCTCAGAATCTCTACCAAGATCTCACGGGGAGAA  
 CTGGATGGCCTGTGGAGAATGGCCTCCGGCTCCTGTCAGCACTTACCAGTATGCGCTGGCCAATGGGG  
 ACATATGGAAGATGCACGAGATGCCTGACTACAGCATGGCCTACGGCAACCCCTGGCGTGGCTGATGTCC  
 CCCACCCTGGAGTGGCTTCAAGGAGCAGAGCCCCAAACGCTCCTGGAGCTGAAGAGGCAGAGGGCCGCA  
 GCCAAGCTGCTCAGTACCCATTCTTAAGCACCCACCTGGGCAGCAGCGTGGCCAGGTGCGGGGAGAGCA  
 GCAGCGAAGGCAAGGCCCTTATTGGAGGCAGAACTTCCCCCTACAGCAGCAACGGGACCTCGGTGTA  
 TTATACAGTACCAGCGGAGATCCCCGCTCTTGAAGTCAAGGCCCCCATGGAGGAGATGGAGGAGAAA  
 GTTCACGGCTGTGCCGGATCTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR208959 protein sequence  
 Red=Cloning site Green=Tags(s)

MASHVDLLTELQLEKVPPTLERLRAAQKRRRAQLKKAQYEQDLLHRKRKHERKRSTGRRKKSFEASV  
 ALLEASLRNDAEEVRYFLKNKVPDLNEDGLTALHQCCIDNFEEIVKLLL SHGANVNAKDNLWPLHA  
 AATCGHINLVKILVQYGADLLAVNSDGNMPYDLCEDEPTLDVIETCMAYQGITQEKINEMRAAPEQKMIS  
 DIHCMIAAGQDLWDIGQATLLHIAGANGYLRAAELLLDHGVVRVDKWDGWEPLHAAAFWQMPMAEL  
 LVSHGASLSARTSMDEMPIDLCEEEEFKVLLELKHKHDVIMKSQLRHKSSLRRTSSAGSRGKVRRAS  
 LSDRTNLYRKEYEGEAILWQQRSAEDQRTSTYNGDIRETRTDQENKDPNPRLEKPVLLSEFSTKISRGE  
 LDGPVENGLRAPVSTYQYALANGDIWKMHMPDYSMAYGNPGVADVPPPWSGFKEQSPQTLELKRQRAA  
 AKLLSHPFLSTHLGSSVARSGESSEKAPLIGGRTSPYSSNGTSVYYTIVTSGDPPLLKFKAPMEEMEEK  
 VHGCCRIS

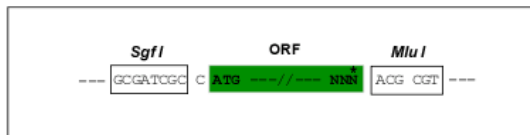
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001159662

**ORF Size:** 1707 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\\_001159662.1](#), [NP\\_001153134.1](#)

**RefSeq Size:** 6392 bp

**RefSeq ORF:** 1707 bp

**Locus ID:** 228852

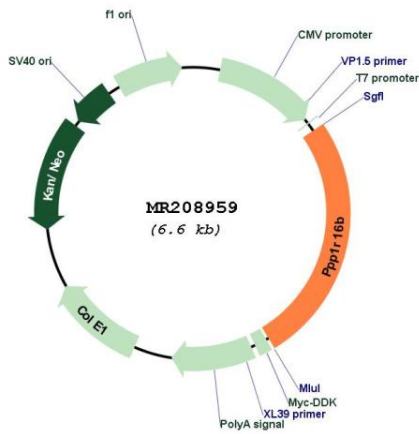
**UniProt ID:** [Q8VHQ3](#)

**Cytogenetics:** 2 H1

**MW:** 63.6 kDa

**Gene Summary:** Regulator of protein phosphatase 1 (PP1) that acts as a positive regulator of pulmonary endothelial cell (EC) barrier function. Protects the endothelial barrier from lipopolysaccharide (LPS)-induced vascular leakage (PubMed:21907835). Involved in the regulation of the PI3K/AKT signaling pathway (By similarity). Involved in the regulation of angiogenesis and endothelial cell proliferation through the control of ECE1 dephosphorylation, trafficking and activity (By similarity). Involved in the regulation of endothelial cell filopodia extension (By similarity). May be a downstream target for TGF-beta1 signaling cascade in endothelial cells (By similarity). Involved in PKA-mediated moesin dephosphorylation which is important in EC barrier protection against thrombin stimulation. Promotes the interaction of PPP1CA with RPSA/LAMR1 and in turn facilitates the dephosphorylation of RPSA/LAMR1 (By similarity). Involved in the dephosphorylation of EEF1A1 (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR208959