

## Product datasheet for MC224462

### Gapvd1 (NM\_025709) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Gapvd1 (NM\_025709) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Gapvd1  
**Synonyms:** 2010005B09Rik; 4432404J10Rik; AW108497; Gapex-5; mKIAA1521; RAP6; RME-6  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC224462 representing NM\_025709  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGTGAAGCTAGATATTCACACATTGGCCACCACCTCAAGCAGGAACGCTTATATGTGAGCTCTGAGA  
 AACAGCTCATTAGAGGCTAAATGCCGATGTACTGAAGACAGCTGAAAAGCTGTATCGAACAGCGTGGAT  
 TGCAAAGCAACAGAGGATTAATTTGGATCGTCTTATTATAACCAGTGTGAAGCTCCCTGCTGAGTGT  
 TGCCAGCATGCCAAGATTTTGGAAAGATACACAGTTTGTGATGGATATAAGCAACTGGGATTTTCAGGAAA  
 CAGCTTATGGAGAATTCCTGAGTCGGTTAAGAGAAAATCCACGACTTATTGCCTCCTCTTTGGTTGCTGG  
 AGAAAACTCAATCAGGAGAACACAAAAGTGTATCTACACTGTTTTTACCTCCTTGTATGGCAACTGT  
 ATTATGCAAGAAGATGAAAGCTACCTCCTTCAGTTTTACGATACTTGATTGAATTTGAACCTAAAGAAA  
 GTGACAACCCAGGCGCCTTTTGAGGAGAGGAACCTGTGCCTTCAGCATCTTATTTAAACTTTTTCTGA  
 AGGACTGTTTTCTGCCAACTTTTCCTACGGCTACTTTGCATGAGCCAATCATGCAGCTCCTCGTAGAG  
 GATGAAGACCACCTGAAAACAGATCCAACAAGCTGATAGAGATTCTCTCCAGCTCAGCAAGAAAAAC  
 TCTTTGGAGAGAAAGGCTCAGATAGATTTAGGCAAAAAGTTCAAGAAATGGTAGATTTCCAATGAGGCTAA  
 ACTAGTGGCTTTGGTGAACAAATTTATTGGTTATCTTAAACAGAATACATACTGCTTTCCACATAGTTTG  
 AGTGATTGTGTACAGATGTACAAACTCTTCTTGTGTAGACAGATTGGAGTTGGGGAAGTCAGAG  
 CAATGTGTACCGATCTTCTGCTGGCTTGCCTCATTGTCTGCAGTTGTCAATCCAGAGCAGTATGGGAT  
 AATATCTGATGCTCCTATTAATGAGGTGGCAAGATTTAACCTGATGCAGTTGGCCGCTTTTGCAGCAG  
 CTAGCAATGACTGGCACTGAAGAAGGAGATCCCCGGACCAAAAATAGCCTTGAAAAATTTGACAAAGGCT  
 GTGTCGCTGCTTCTTGTGTAATTTGGGGCCGTGCAGTGGAGACTCCGCCAATGCCTCTGTAA  
 TCTTCTGGAAGGCTTGGCAGAACTGTGGTGTATAAAGTTACAGTCAGCTTATTACTCTGGTAAATTTT  
 ATGAAGAGTGTGATGTCTGGAGATCAACTGAAAGAAGATAGAATGGCTCTTGACAATTTGTTGGCAACC  
 TGCCCCAGGCTAAGCCAGGGAAGAGCAGAGTCTGGACATGACTCCCTATAGCACTCCTCAGATGTCTCC  
 AGCAACCACTCCAGCAACAAGAAGATCGATTACCTATAGCAACTCGGAGCAGAAGCCGAAGTAATATG  
 TTAATGGACCTACATATGGATCATGAAGGATCATCTCAAGAAACCATCCAGGAGTACAGCCAGAAGAGG



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TGCTGGTCATTTCTTAGGGACAGGCCCTCAGCTCACTCCAGGGATGATGTCAGAAAATGAGGTTCTAAA  
 CATGCAGCTTTCGGATGGAGGACAAGGAGATGTCCCTGTTGATGAAAACAACTCCACGGTCTTCCAAT  
 CGCTCAAATTCGGTGTCTTCTCTCGACCTGGAGGGAGAGTCTGTATCTGAACTTGGGGCAGGACCTCTG  
 GGAGTAACGGAGTTGAAGCACTGCAGCTGTTAGAGCACGAGCAAGCTACAACACAAGATAATCTTGATGA  
 TAAACTGAGGAAGTTTGAGATTCGTGACATGATGGGACTAACAGATGACAGGGACATATCCGAGACTGTG  
 AGTGAGACCTGGAGCACTGATGTCTGGGAAGTGACTTCGACCCGAACGTTGATGAAGATCGTTTGCAAG  
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 CCTTGACCCTTGCACTGGCTCTACCATATCAGAGACCACAAGTGAAGCTTGGAGGTAGAGGTATTGCCA  
 AGTGACTCAGAGGCTCCAGACTTAAAGCAGGAAGAGCGCCTCCAAGAGCTGGAGAGCTGTTCTGGACTGG  
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 CCTCTCCTCCTCTCAGTCAGAGTCTCTGCTTGCCATGTTTGATCCACTGTCTCACATGAAGGGGCTC  
 TGCTGTGGTAAGGCCAAAGGTTCACTATGCCCGACCCTCGCATCCACCTCCGGATCTCCAATCCTGGAA  
 GGTGCAGTGGGAGGAAATGAGGCCAGGTTGCCAACTTTGGCTCTCACGTTTTAACTGCAGCTGAAATGG  
 AGGCGTTCAAGCAGAGACTCATACCCTGAGAGATTGGTTCGCAGCAGAAGCTCTGATATAGTGTCTTC  
 TGTGCGGCGGCCATGAGTGACCCAGCTGGAACCGACGTCCAGGGAATGAAGAATTCCTCCAGCTGCA  
 GCCACTGGTGCTACTTCTTTGGTGGCTGCACCTCACTCGTCATCTTCGTCCCGAGTAAGGACTCTTCTA  
 GAGGAGAGACTGAGGAACGCAAGGACAGTGACGATGAGAGGTCAGACAGGAGCAGGCCTTGGTGGAGGAA  
 GCGCTTTGTTTCAGCTATGCCTAAAGCTCTATAACATTTAGAAAAGAAAGAAAAACAAGAAAAAGACAAA  
 GATGATCTGGGTCCTGACAGATTCTCAACTCACAGATGAGCCAGCCTAGGCTCAGTGTCAAGCTC  
 AGGTTGCTGAAGATATTTGGACAAGTACCGGAATGCCATTAACGGACCAGCCCAAGTGAAGGAGCAAT  
 GGCAAATGATGAGAGTGCAGAGTTCAGGTCATGGGTGATGGTGAAGTGCCACGACTCTCCTCGTGAGGAAGCA  
 CTGCAGAACATCTCAGCCGACGACCTCCCGGACTCCGCCAGCCAGGCAGCCACCCTCAGGACTCTGCTT  
 TCTCTTACAGAGATGTAAGAAAGAGCTGAGGCTCGCACTTTGCTCTGCAGACTCTGTGGCTTCCCACT  
 GCTAACTCATTCAACAAGGAATGGATTGCCAGACCACACAGACCCAGAAGACAATGAAATTTGATGCTTC  
 TTAAGAGTTCAAATAGCTGAAGCAATTAATTTACAAGATAAGAGCTTAATGGCTCAACTCAAGAAACAA  
 TGCGTTGTGTGTGCCGCTTGGACAATAGGACTTGTAGGAAGTGTGGCATCCATTGCTGAAGACTACAG  
 AAAAGAGCTCCGTATATTGCTTATCTTACCCGCTGCCGACAAGGACTGCAGACCACACAGGCTCACTTG  
 GAAAGGCTCTTCAAAGAGTTTTGCGGGACAAAGAGGTGGCCAATCGGTACTTCACCACTGTCTGTGTGC  
 GGTACTGCTTGAGAGCAAAGAAAAGAAAATCAGGGAGTTCATCAAGACTTTCAGAACTTACTGTCTGC  
 TGATGATAAAACGGCTCAGGTGGAGGATTTTCTACAGTTCCTGTATGGTGTGATGGCTCAGGATGTCATA  
 TGGCAGAATGCCAGTGAGGAGCAGCTGCAGGATGCCAGCTGGCCATCGAGCGGAGTGTGATGAATCGGA  
 TCTTCAAGCTTGCTTTCTACCCTAACCAAGGATGGGGACATACTTCGTGACCAGGTTCTGCATGAACATAT  
 CCAGAGATTATCTAAAGTAGTACTGCAAACCACAGAGCTCTGCAGATCCCTGAGGTTTATCTCCGTGAG  
 GCACCATGGCCATCTGCACAGTCAGAAATCAGGACAATAAGTGCTTACAAAACGCCCGCAGCAAAGTGC  
 AGTGATCCTGAGGATGTGCTCCACCATCATGAACCTTTGAGCCTGGCCAACGAGGACTCTGTCCCCGG  
 GGCAGATGACTTTGTTCTGTGTTGGTGTGTTGTTAAATAAGGCAAACCCACCCTGCCTGCTGTCCACT  
 GTGCAGTACATCAGCAGCTTCTATGCCAGCTGTCTGTGGAGAGGAGTCTACTGGTGGATGCAGTTCA  
 CAGCAGCCGTGGAGTTTATTAACCACATCGATGACAGAAAAGTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI  
 ACCN: NM\_025709  
 Insert Size: 4314 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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_025709.2</a> , <a href="#">NP_079985.2</a>
<b>RefSeq Size:</b>	5966 bp
<b>RefSeq ORF:</b>	4314 bp
<b>Locus ID:</b>	66691
<b>UniProt ID:</b>	<a href="#">Q6PAR5</a>
<b>Cytogenetics:</b>	2 B
<b>Gene Summary:</b>	<p>Acts both as a GTPase-activating protein (GAP) and a guanine nucleotide exchange factor (GEF), and participates in various processes such as endocytosis, insulin receptor internalization or LC2A4/GLUT4 trafficking. Acts as a GEF for the Ras-related protein RAB31 by exchanging bound GDP for free GTP, leading to regulate LC2A4/GLUT4 trafficking. In the absence of insulin, it maintains RAB31 in an active state and promotes a futile cycle between LC2A4/GLUT4 storage vesicles and early endosomes, retaining LC2A4/GLUT4 inside the cells. Upon insulin stimulation, it is translocated to the plasma membrane, releasing LC2A4/GLUT4 from intracellular storage vesicles. Also involved in EGFR trafficking and degradation, possibly by promoting EGFR ubiquitination and subsequent degradation by the proteasome. Has GEF activity for Rab5 and GAP activity for Ras.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) uses an alternate in-frame splice junction compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>