

Product datasheet for **SC309909**

GAPex 5 (GAPVD1) (NM_015635) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GAPex 5 (GAPVD1) (NM_015635) Human Untagged Clone
Tag:	Tag Free
Symbol:	GAPVD1
Synonyms:	GAPex-5; GAPEX5; RAP6
Vector:	<u>pCMV6 series</u>
Fully Sequenced ORF:	>NCBI ORF sequence for NM_015635, the custom clone sequence may differ by one or more nucleotides

```

ATGGTGAAACTAGATATTCATACTCTGGCTCATCACCTCAAGCAGGAACGCTTATATGTA
AACTCTGAGAAACAGCTCATTGAGAGGCTCAATGCAGATGTACTTAAGACAGCTGAAAAG
TTGTATCGTACAGCATGGATTGCGAAGCAACAGAGAATCAATTTGGATCGGCTTATCATA
ACCAGTGTGAAGCTTCCCCTGCTGAATGTTGCCAACATGCCAAAATTTTGAAGATACA
CAATTTGTTGATGGGTATAAGCAATTGGGATTTCCAGGAGACTGCTTATGGAGAATCTTG
AGTCGATTGAGGGAAAACTCCCTGCTTATTGCCTCCTCTTGGTTGCTGGAGAGAACTT
AATCAGGAGAACACAAAAGTGTATTTACACAGTTTTTACCTCCCTGTATGGCAATTGC
ATCATGCAAGAAGATGAAAGCTACCTCCTTCAGTTTTGCGATACTTGATTGAATTTGAA
CTTAAAGAAAGTGACAACCTAGGCGACTTTTGAGGAGAGGAACTTGTGCCTTCAGCATC
TTATTTAAACTTTTTCTGAAGGACTGTTTTCTGCCAACTTTTTCTCACAGCCACTTTA
CATGAGCCAATTATGCAACTGCTTGTGGAAGATGAAGATCACCTGGAAACAGATCCAAAC
AAGCTAATTGAGAGGTTCTCTCCATCTCAGCAGGAAAACTCTTTGGAGAGAAGGGCTCA
GATAGATTCAGGCAAAAAGTTCAAGAAATGGTGGAGTCCAATGAAGCAAAGCTAGTGGCT
TTGGTGAACAAAATTTATTGGTTATCTCAAACAGAACACATATTGTTTTCCACATAGTTA
AGGTGGATCGTGTCTCAGATGTACAAAACCTCTCCTGTGTAGATAGGCTGGAAGTTGGG
GAGGTCAGGGCAATGTGTACTGATCTCCTGTTGGCTGCTTCATTTGTCCTGCAGTTGTC
AATCCAGAACAATATGGAATAATTTCCGATGCTCCTATTAATGAAGTAGCACGATTTAAT
CTGATGCAAGTAGGCCGCTTTTGCAGCAGTTAGCAATGACTGGCTCTGAAGAGGGAGAT
CCCCGAACAAAGAGCAGCCTTGGAAAGTTTGACAAAAGCTGTGTTGCCGCTTTCTTGAT
GTTGTGATTGGGGCCGTGCAGTGGAGACCCCTCCATTGTCTCCGTCAATCTTCTGGAA
GGATTGAGCAGAACTGTGGTTTATATAACCTACAGTCAGCTTATTACTCTGGTGAATTTT
ATGAAGAGTGTGATGTCTGGAGATCAACTGAGAGAAGATAGAATGGCTCTTGACAATTTA
TTGGCAAACCTACCCCGGCCAAGCCAGGAAAAAGTAGCAGTTTAGAAATGACTCCCTAC
AATACACCTCAGCTATCTCCAGCAACCACTCCAGCAAATAAAAAGAAATCGATTACCTATA
GCAACTCGGAGCAGAAGCCGACCAATATGCTAATGGACCTACATATGGACCATGAAGGA
TCATCTCAAGAAACCATCCAGGAGGTGCAACCAGAAAGAGGTGTTGGTCATTTCTTAGGT
ACAGGTCCCAGCTTACTCCAGGGATGATGTCAGAAAAAGAGTCTAAACATGCAGCTT
TCGGATGGAGGACAAGGAGATGTCCCTGTTGATGAAAAACAACTCCATGGTAAACCTGAT
AAAACCTTGCCTTTTCCCTCTGCAGTGATAATCTGGAAGGAATATCTGAAGTCTTCA

```



[View online »](#)

AATCGCTCCAATTCAGTGTCTCCCTAGACCTAGAAGGAGAGTCTGTGTGAGAACTTGGG
 GCAGGACCTTCTGGCAGTAATGGAGTTGAAGCTCTACAGCTGTTAGAACATGAGCAAGCT
 ACAACACAGGATAACCTTGATGATAAGCTAAGGAAGTTTAAAATTCGTGACATGATGGGA
 TTAACAGATGATAGGGACATATCAGAAACAGTGAGTGAGACCTGGAGTACAGACGCTTG
 GGAAGTGACTTTGACCCTAATATTGATGAAGATCGCTTGAAGAAATTCAGGTGCTGCA
 CCAGAGAACATGTTAGGCAGTTTGTGTGCCTCCAGGTTCCAGGGTCAGTGCTTCTTGAC
 CCCTGCAGTGGTCTACCATATCAGAGACAACAAGTGAAGCTTGGAGTGTAGAGTATTG
 CCAAGTGACTCAGAGGCCCCAGACCTAAAAGCAGGAGGAGCGTCTGCAAGAACTGGAGAGC
 TGTTCTGGACTGGGTAGCACATCTGATGATACGGATGTCAGGGAGGTCAGTTCGCCCC
 AGCACACCAGGCCTCAGTGTGTGTCCGGCATAAGTGCAACCTCTGAGGATATTCCCAAT
 AAGATTGAAGACCTGAGATCTGAGTGCAGCTCTGATTTTGGGGTAAAGATTCTGTCACT
 AGTCCAGACATGGATGAAATAACTCACGATTTTCTTTATATACTCAGCCAAAACAACAT
 TTTCAACACATTGAAGCAGAAGCAGACATGAGAATCCAGCTGTCTCTAGTGCCACCAG
 CTGACCTCTCCTCTCTCAGTCAGAGTCTCTGCTGGCCATGTTTGTACTGTCTTCA
 CATGAAGGGCTTCTGCTGTGGTAAGGCCAAAGGTTCACTATGCTAGGCCATCGCATCCA
 CCACCAGATCCCCAATCCTGGAAGGAGCTGTGGGAGGAAATGAGGCCAGTTGCCAAAC
 TTTGGTCCCATGTTTTAACTCCAGCTGAAATGGAGGCATTCAAGCAAAGGCATTCTTAC
 CCTGAGAGACTAGTTCGAAGCAGGAGCTCTGATATAGTATCTTCTGTCCGGAGACCCATG
 AGTGACCCAGCTGGAACCGGCTCCAGGAAATGAAGAGCGAGAACTCCCTCCAGCTGCA
 GCCATTGGTGCTACTTCTTTGGTGGCTGCACCTCATTATCATCTTATCCCCGAGTAAG
 GACTCCTCAAGAGGAGAGACTGAAGAACGCAAAGATAGCGATGATGAGAAATCAGACAGG
 AACAGACCTTGGTGGAGAAAACGTTTTGTTTCAGCCATGCCTAAAGCTCCTATACCATTT
 AGAAAAGAAAACAAAGAAAAGACAAAAGATGATCTGGGGCTGACAGATTCTCAACA
 CTCACAGATGATCCCAGCCCTAGACTCAGTGACAAAGCTCAGGTGGCTGAGGATATTCTG
 GACAAATACAGGAATGCCATTAACGGACCAGCCCAAGTATGGAGCAATGGCAAATAT
 GAAAGTACAGAGGTTATGGGTGATGGTGAAGTGCACATGATTCTCCCCGTGACGAAGCA
 CTGCAGAACATCTCGGCTGATGATCTCCAGACTCTGCAAGCCAAGCAGCCACCCGAG
 GATTACAGTTTCTCTTACAGAGATGCAAAAAGAACTGAGGCTTGCTCTTTGCTCTGCG
 GACTCTGTTGCCCTCCAGTGTGACCCATTCAACAAGGAATGGTTTACCAGACCACACA
 GACCCAGAAGACAATGAAATTGTATGCTTCTTAAAAGTTCAAATAGCTGAAGCAATTAAT
 TTACAAGATAAGAATCTAATGGCTCAACTCAAGAAACAATGCGCTGTGTGTGCCGTTTT
 GATAATAGGACTTGTAGGAAACTGCTGGCTTCGATTGCTGAGGACTACAGAAAAGAGCC
 CCATATATTGCTTATCTCACTCGTTGTGCAAGGACTACAGACCACACAGGCTCACCTG
 GAAAGGCTATTGCAAAGAGTTTTGCGGGACAAAGAAGTGGCCAATCGATACTTTACCCT
 GTCTGTGTGAGATTACTGCTTGAGAGCAAAGAAAAGAAATCAGGGAAATTCATTCAAGAC
 TTTTCAAGAACTCACCGCAGCTGACGATAAACTGCTCAGGTAGAAGATTTTCTGCAAGTT
 CTTTATGGTGCAATGGCCAGGATGTCATATGGCAAACGCGAGTGAAGAACAGCTTCAA
 GATGCACAGCTGGCCATTGAGCGAAGCGTGATGAACCGGATTTTCAAGCTCGCCTTCTAC
 CCTAATCAAGATGGGGACATACTTCGCGACCAGGTTCTTCAACATATCCAGAGATTG
 TCTAAAAGTAGTGACTGCAAAATCACAGAGCTCTTACAGATACCAGAGGTTTATCTTCGAGAA
 GCACCATGGCCATCTGCACAATCAGAAATCAGGACAATAAGTGCTTATAAAAACCCCGG
 GACAAAGTGCAGTGCATCCTGAGAATGTGCTCTACGATTATGAACCTCCTGAGCCTGGCC
 AATGAGGACTCTGTCCCTGGAGCGGATGACTTTGTTCTGTGTTGGTGTGTTGTTGATA
 AAGGCAAATCCACCCTGTTTGTGTCTACTGTGCAGTATATCAGTAGCTTTTATGCTAGC
 TGTCTGTCTGGAGAGGAGTCCTATTGGTGGATGCAGTTCACAGCAGCAGTAGAATTCATT
 AAAACCATCGATGACCGAAAAGTGA

Restriction Sites: Please inquire

ACCN: NM_015635

OTI Disclaimer:	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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	<ol style="list-style-type: none">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_015635.2 , NP_056450.2
RefSeq Size:	6906 bp
RefSeq ORF:	4464 bp
Locus ID:	26130
UniProt ID:	Q14C86
Cytogenetics:	9q33.3
Gene Summary:	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]