

## Product datasheet for **RG226279**

### **PAG3 (ASAP2) (NM\_001135191) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PAG3 (ASAP2) (NM_001135191) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PAG3
Synonyms:	AMAP2; CENTB3; DDEF2; PAG3; PAP; Pap-alpha; SHAG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG226279 representing NM\_001135191  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCCGGACCAGATCTCCGTGTCCGAATTCGTGGCCGAGACCCATGAGGACTACAAGCGCCACCGCCCT  
 CCAGCTTCACCACCCGCACGGCGCAGTGC CGGAACACTGTGGCGCCATCGAGGAGGCTTTGGACGTGGA  
 CCGGATGGTTCTTTACAAAATGAAGAAATCCGTGAAAGCAATCAACAGCTCTGGGCTGGCTCACGTGGAA  
 AATGAAGAGCAGTACACCCAGGCTCTGGAGAAGTTTGGCGCAACTGTGTATGCAGAGATGACCCAGATT  
 TAGGAAGTGC GTTCTGAAGTTCTCAGTGTTTACAAAGGAGTTGACAGCACTTTTCAAAAACCTGATTCA  
 GAATATGAACAACATAATCTCCTTCCCTTTGGACAGTTTGTGTAAGGGGGACCTGAAAGGAGTGAAAGGG  
 GATCTGAAAAAGCCTTTTGATAAAGCTTGAAGGACTATGAAACAAAAAATACCAAGATAGAAAAGGAGA  
 AAAAGGAACACGCCAAGCTCCATGGGATGATTCGGACTGAAATAAGCGGAGCGGAAATTCGCCAAGAGAT  
 GGGAAAAGGAGAGCGCTTCTCCAGCTACAGATGTGCGAGTATCTGCTGAAGGTCAACGAAATCAAGATT  
 AAAAAGGAGTAGATTTACTTCAGAATCTGATCAAACTTTTCATGCCCAATGCAATTTTTTTTCAGGATG  
 GACTCAAAGCCGTGGAAGCCTCAAACCTTCCATTGAAACGCTGTCTACGGATCTTCACACGATCAAACA  
 GGCCAGGATGAAGAAAGAAGGCAGTTGATACAGCTTCGAGATATTTTGAATCCGCATTGCAGGTTGAA  
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 ATGTTTCAGTTAAAAATGGTTTTCTGACCATATCCCATGGTACCGCTAACCGGCCCTCTGCAAAGCTCAAC  
 CTGCTAACCTGCCAGTGAAGACCAACCCTGAGGAGAAGAAGTGCTTTGACCTCATTTACATGACAGAA  
 TTTACCCTTTCAAGCTGAAGATGAACAGGAATGTCAAATATGGATGTCTGTGCTGCAAAAATAGCAAAGA  
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 AAGGAGATCATCTCAGAAGTGCAGAGGATGACGGCAATGACGTCTGCTGTGACTGTGGGCGCCAGATC  
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 GGTTTCATTATTCAGGATGCAGTCCCTGACCTTAGATGTACTGGGAACATCTGAGCTGCTGCTCGCCAAG  
 AATATTGGGAATGCAGGCTTTAATGAGATCATGGAATGTTGCCTACCAGCTGAGGACTCAGTCAAACCCA  
 ACCCAGGCAGCGACATGAATGCAAGAAAGGACTACATCACAGCCAAGTACATCGAGAGGAGATACGCAAG  
 GAAGAAGCACGCGGATAACGCGCGAAGCTTACAGTCTTTGCGAGGCCGTCAAACGAGAGATATTTTT  
 GGATTGCTCCAAGCTTATGCTGATGGTGTGGATCTTACGGAATAATCCCACTGGCCAACGGACATGAGC  
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 AGTTTCAGAACAGTGGAACTGGATAAACAGACAGGAAAAGGCAGCACAGCCCTGCACTACTGCTGCCTG  
 ACCGACAATGCCGAGTGCCTCAAGTTGCTCCTGCGGGGAAGGCCTCCATCGAGATAGCAAACGAGTCAG  
 GAGAGACTCCGCTGGACATTGCCAAGCGCCTCAAGCACGAGCACTGTGAGGAGCTGCTGACCCAAGCCTT  
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 GGAGAAGCAGAGGGCTTTTCATGCCAGCATCTTGCAAGATGAGACTTACGGAGCCCTCTGAGTGGCAGC  
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 AAGATCCCTGACCCCCACGCGCCCCACCCGTTGCCAAGACGCCCAGCGTAATGGAAGCCTTGAGCCA  
 GCCGAGCAAGCCTGCCCGCCTGGGATCTCACAGATCAGGCCCCACCTCTGCCCCACAGCCGCCAGC  
 CGCCTCCCGCAGAAGAAGCCTGCGCCGGGGCTGACAAGTCCACCCCACTGACCAACAAAGGCCAACCGA  
 GAGGACCTGTGGATCTCTGCAACGGAAGCTCTGGTCTCTGTCCAATGCTATGGTCTGCAGCCCCC  
 TGCACCCATGCCTAGGAAGTGCAGGCAACCAAGTTGAAGCCTAAGCGGGTGAAGCGCTCTATAACTGT  
 GTGGCTGACAACCCGATGAGCTCACCTTCTCCGAGGGGATGTGATCATCGTGGACGGGAGGAGGACC  
 AGGAGTGGTGGATTGGCCACATTGATGGAGATCCTGGTCGAAAGCGCATTCCCGGTGTCATTTGTGCA  
 CTTTATCGCTGAC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG226279 representing NM\_001135191  
 Red=Cloning site Green=Tags(s)

MPDQISVSEFVAETHEDYKAPTASSFTTRTAQCRNTVAAIEEALDVDRMVLKMKKSVKAINSSGLAHVE  
 NEEQYTQALEKFGGNCVCRDDPDLGSAFLKFSVFTKELTALFKNLIQNMNNIISFPLDSSLKGDLDKGVK  
 DLKKPFDKAWKDYETKITKIEKEKKEHAKLHGMIRTEISGAIEAEEMEKERRFFQLQMCYLLKVNIEIKI  
 KKGVDLLQNLIKYFHAQC�FFQDGLKAVESLKPSETLSTDHLTIKQAQDEERRQLIQLRDILKSALQVE  
 QKEDSQIRQSTAYSLHQPOGNKEHGTERNGSLYKKSDBGIRKVVQKRKCSVKNGFLTISHGTANRPPAKLN  
 LLTCQVKTNPEEKCFDLISHDRTYHFQAEDQECCQIWM SVLQNSKEEALNNAFKGDDNTGENNIVQELT  
 KEIISEVQRMTGNDVCCDCGAPDPTWLSTNLGILTCIECSGIHRELGVHYSRMQSLTLDVLTSELLAK  
 NIGNAGFNEIMECLPAEDSVKPNPGSDMNARKDYITAKYIERRYARKKHADNAAKLHSLCEAVKTRDIF  
 GLLQAYADGVDL TEKIPLANGHEPDETAHLAVRSVDRTSLHIVDFLVQNSGNLDKQTGKGSTALHYCCL  
 TDNAECLKLLLRGKASIEIANESGETPLDIARLKHHECEELLTQALSGRFNSHVHVEYEWRLLEDLDE  
 SDDDMDEKLQSPNRREDRPI SFYQLGNSQLQSNVSLARDAANLAKEKQRAFMP SILQNETYGALLSGS  
 PPPAQPAAPSTTSAPPLPPRNVGKDPLTPTPPPVAKTPSYMEALSQPSKPAPPGISQIRPPPLPPQPPS  
 RLPQKKPAPGADKSTPLTNKGQPRGPVDLSATEALGPLSNAMVLQPPAPMPRKSQATKLPKRVKALYNC  
 VADNPDELTFSEGDV IIVDGEEDQEWIIGHIDGDPGRKGAFPVSFVHFIA D

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

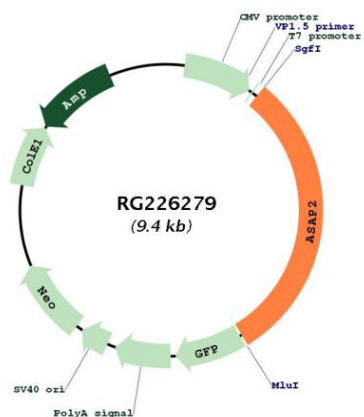


ACCN: NM\_001135191

ORF Size: 2883 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_001135191.1</a> , <a href="#">NP_001128663.1</a>
<b>RefSeq Size:</b>	5589 bp
<b>RefSeq ORF:</b>	2886 bp
<b>Locus ID:</b>	8853
<b>UniProt ID:</b>	<a href="#">O43150</a>
<b>Cytogenetics:</b>	2p24
<b>Protein Pathways:</b>	Endocytosis, Fc gamma R-mediated phagocytosis
<b>Gene Summary:</b>	<p>This gene encodes a multidomain protein containing an N-terminal alpha-helical region with a coiled-coil motif, followed by a pleckstrin homology (PH) domain, an Arf-GAP domain, an ankyrin homology region, a proline-rich region, and a C-terminal Src homology 3 (SH3) domain. The protein localizes in the Golgi apparatus and at the plasma membrane, where it colocalizes with protein tyrosine kinase 2-beta (PYK2). The encoded protein forms a stable complex with PYK2 in vivo. This interaction appears to be mediated by binding of its SH3 domain to the C-terminal proline-rich domain of PYK2. The encoded protein is tyrosine phosphorylated by activated PYK2. It has catalytic activity for class I and II ArfGAPs in vitro, and can bind the class III Arf ARF6 without immediate GAP activity. The encoded protein is believed to function as an ARF GAP that controls ARF-mediated vesicle budding when recruited to Golgi membranes. In addition, it functions as a substrate and downstream target for PYK2 and SRC, a pathway that may be involved in the regulation of vesicular transport. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2008]</p>

Product images:



Circular map for RG226279