

## Product datasheet for **RC222360**

### **PION (GSAP) (NM\_017439) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PION (GSAP) (NM_017439) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PION
Synonyms:	PION
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC222360 representing NM\_017439  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTCTTCGCCTGGTCCGCGACTTCGACCTCGGAAGGACGTGCTCCCGTGGTTGCGGGCGCAGCGGG  
 CAGTGTCCGAGGCCAGCGGGGCCGAAGCGCGCGCAGATGTTTTAGAAAACGATTATGAGAGCTTACA  
 TGTATTAATGTTGAAAGAAATGAAAATATTATTATACCTATAAGGATGATAAGGGAAATGTCGCTTTT  
 GGATTATATGATTGTCAAACAGACAAAATGAGCTTCTATATACCTTTGAGAAAGACTTGCAAGTTTTCA  
 GTTGCTCTGTCAACAGTAAAGGACTTTGCTTGTGCAAGTTTAGTTCAGTCTACTAAAGAAGGAAAAAG  
 GAACGAACTTCAACCAGGATCAAAGTGTGACTTTGTTGGTTGAAATCCACCCTGTTAACAATGTGAAG  
 GTTCTAAAGGCTGTGGATAGCTATATTTGGGTTCAAGTTTCTACCCACATATTGAAAGTCATCCTCTTC  
 CAGAGAACCATCTGTTACTGATTTCAAGAGAAAATATATTGAACAATTCGATCCATGTCGCCAAGA  
 AGATGAAATAGAGTGGTGATTAATAAATCTGGCCATCTCCAAGAGACAGAATAGCTGAGGATTTGCTT  
 TGGGCTCAGTGGGATATGTCAGAACAGAGATTATATTACATTGACCTGAAGAAATCAAGGAGTATCTTAA  
 AATGTATCCAGTTTTATGCTGATGAGAGCTATAACTTAATGTTTGAAGTACCCTTGACATATCATTAAAG  
 CAACTCAGGATTTAACTTGTCACTTTGGATGTGATTATCATCAATACCGAGATAAATTTTCCAAACAC  
 CTGACTCTGTGTGTTTTACCAACCATACAGGAAGTTGTGTGTATGTTACAGCCCGAAGTGTGCCTCTT  
 GGGGACAAATCACATATTCAGTGTTTTACATTCATAAAGGACACAGCAAGACCTTACCACCTTCTTTGA  
 GAATGTTGGGTCACACATGACAAAGGCGATTACTTTTCTCAACCTTGACTATTATGTGGCTGTTTACTTA  
 CCTGGTCATTTCTCCACCTACTTAATGTTCAACATCCAGACCTGATCTGCCACAATCTCTTTCTGACAG  
 GAAATAATGAAATGATTGATGCTACCTACCTATGGCCCTTACAGTCATTGTCAGGGTCCCTGGTATTGGA  
 TTGTTGTTCTGGAAAGCTCTATAGAGCACTGCTCAGCCAGTCGTCTTTATTACAGCTTCTGCAGAACACT  
 TGCTTAGACTGTGAGAAGATGGCTGCGTTGCACTGCGCGCTCTACTGCGGTCAAGGTGCGCAGTTCCTGG  
 AAGCCCAGATTATTCAGTGGATTCTGAGAATGTCTCTGCCTGCCATTCATTTGACCTCATTGAGGAATT  
 TATAATTGCTTCTCATACTGGAGTGTATATTAGAGACAAGTAACATGGACAAACTATTGCCACATTCC  
 TCAGTGTCACTTGAATACAGAAATTCCTGGAATAACTCTTGTGACAGAAGACATTGCATTGCCTCTTA  
 TGAAGGTGCTCAGCTTTAAGGGCTACTGGGAAAAACTGAACTCCAACCTAGAATATGTTAAGTACGCCAA  
 GCCACACTTCCACTATAACAACAGTGTGGTCAGGAGAGAGTGGCACAACCTGATCTCTGAAGAGAAAACA  
 GGAAAAAGAAGGTCTGCGGCATACGTGAGGAATATTCTTGATAATGCAGTAAAGGTGATTTCTAACCTAG  
 AAGCAAGAAATTTGGGGCCAAGATTAACACCCCTCCTGCAGGAGGAAGACAGCCACCAGCGGCTGCTCAT  
 GGGGCTGATGGTGTCTGAGCTAAAAGACCATTTTTTGGAGACCTACAGGGTGTAGAAAAGAAGAAAT  
 GAACAGATGGTTCTGGACTACATTTCAAAACTGCTGGATCTCATTGGCCACATCGTAGAAACCAATTTGA  
 GGAAACATAATCTTCAATCCTGGGTTCTCCACTCAATAGTCGTGGCAGTGTGCTGAATTTGCAGTTTT  
 TCACATCATGACCAGGATTTGGAAGCTACAAACAGTTTGTGTTTACCTCTGCCTCCTGGTTTTCTACT  
 CTGCACACCATCCTCGGGTCCAGTGTCTCCCTTTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGT  
 TGCTTCTCACTGAAACAGCTGTCATAAGGCTCATGAAAGATCTGGATAATACAGAGAAAAATGAAAAACT  
 GAAATTCAGTATCATTGTGCGGCTTCTCCGCTTATTGGGAGAGATTGTAGACTTTGGGATCATCCT  
 ATGAGTTCTAACATCATTTCGCGGAACCAGTGACGCGACTGCTTCAGAACTATAAGAAACAGCCTCGGA  
 ATTCTATGATTAACAAGTCATCGTTTCAAGTGTAGAAATTTCTGCCTCTGAACTACTTCATTGAAATTTGAC  
 AGATATAGAGTCTCCAATCAAGCCCTGTATCCTTTTGAAGGACATGACAATGTGGATGCAGAAATTTGTA  
 GAGGAAGCAGCTCTGAAACACACCGCGATGCTTTTAGGCTTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC222360 representing NM\_017439  
 Red=Cloning site Green=Tags(s)

MALRLVADFDLGDVLPWLRQRAVSEASGAGSGGADVLENDYESLHVLNVERNNGNIITYYKDDKGNVVF  
 GLYDCQTRQNELLYTFEKDLQVFSVNSERTLLAASLVQSTKEGKRNELQPGSKCLTLLVEIHPVNNVK  
 VLKAVDSYIWWQFLYPHIESHLPENHLLLISEEKYIEQFRIHVAQEDGNRVVIKNSGHLPRDRI AEDFV  
 WAQWDMSEQRLLYYIDLKKSRSILKCIQFYADESYNLMFEVPLDISLSNSGFKLVNFGCDYHQYRDKFSKH  
 LTL CVFTNHGTSLCVCYSPKASWQITYSVFYIHKGHSKTFTTSL ENVGSMTKGITFLNLDYYVAVYL  
 PGHFFHLLNVQHPDLICHNLFLTGNEMIDMLPHCPLQSLSGSLVLDCCSGKLYRALLSQSSLLQLLQNT  
 CLDCEKMAALHCALYCGQGAQFLEAQIIQWISENVSAHSFDLIQEFIIASSYWSVYSETSNMDKLLPHS  
 SVL TWNTEIPGITLVTE DIALPLMKVLSFKGYWEKLNLSNLEYVKYAKPHFHNN SVVREWHNLISEEKT  
 GKRRSAAYVRNILDNAVKVISNLEARNLGPRLTPLLQEEDSHQRLLMGLMVSELKDHFRLHLQGVKKKI  
 EQMVLDI SKLLDLICHIVETNLRKHNLSWVLFNSRGSAAEFV FHMTRILEATNSLFLPLPPGFHT  
 LHTILGVQCLPLHNLHCIDSGVLLL TETAVIRLMKDLNTEKNEKLFKSIIVRLPPLIGQKICRLWDHP  
 MSSNIISRNVHTRLLQNYKKQPRNSMINKSSFSVEFLPLNYFIEILTDIESSNQALYPFEGHDNVDAEFV  
 EEAALKHTAMLLGL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg4355\\_g12.zip](https://cdn.origene.com/chromatograms/mg4355_g12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

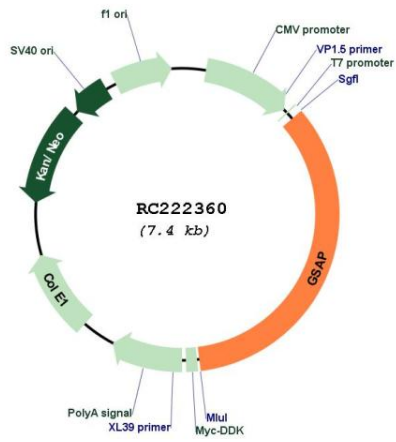
Cloning sites used for ORF Shuttling:



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

<b>ACCN:</b>	NM_017439
<b>ORF Size:</b>	2562 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_017439.3</a> , <a href="#">NP_059135.2</a>
<b>RefSeq Size:</b>	3265 bp
<b>RefSeq ORF:</b>	2565 bp
<b>Locus ID:</b>	54103
<b>UniProt ID:</b>	<a href="#">A4D1B5</a>
<b>Cytogenetics:</b>	7q11.23
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	97.6 kDa
<b>Gene Summary:</b>	Accumulation of neurotoxic amyloid-beta is a major hallmark of Alzheimer disease (AD; MIM 104300). Formation of amyloid-beta is catalyzed by gamma-secretase (see PSEN1; MIM 104311), a protease with numerous substrates. PION, or GSAP, selectively increases amyloid-beta production through a mechanism involving its interaction with both gamma-secretase and its substrate, the amyloid-beta precursor protein (APP; MIM 104760) C-terminal fragment (APP-CTF) (He et al., 2010 [PubMed 20811458]).[supplied by OMIM, Nov 2010]

Product images:



Circular map for RC222360