

Product datasheet for **RG222360**

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:	TurboGFP
Symbol:	PION
Synonyms:	PION
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG222360 representing NM_017439
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTCTTCGCCTGGTCGCCGACTTCGACCTCGGGAAGGACGTGCTCCCGTGGTTGCGGGCGCAGCGGG
 CAGTGTGCGGAGGCCAGCGGGGCCGAAGCGCGCGCAGATGTTTATAGAAAACGATTATGAGAGCTTACA
 TGTATTAATGTTGAAAGAAATGAAATATTATTATACCTATAAGGATGATAAGGAAATGTCGCTTT
 GGATTATATGATTGTCAAACAGACAAAATGAGCTTCTATATACCTTTGAGAAAGACTTGCAAGTTTTC
 GTTGCTGTGTCAACAGTAAAGGACTTTGCTTGTGCAAGTTTAGTTCACTACTAAAGAAGGAAAAAG
 GAACGAACTTCAACAGGATCAAAGTGTGACTTTGTTGGTTGAAATCCACCCTGTTAACAATGTGAAG
 GTTCTAAAGGCTGTGGATAGCTATATTTGGGTTCAAGTTTCTTACCCACATATTGAAAGTCATCCTCTC
 CAGAGAACCATCTGTTACTGATTTCAAGAGAAATATATTGAACAATTCGATCCATGTCGCCCAAGA
 AGATGGAATAGAGTGGTGATTAATAATCTGGCCATCTCCAAGAGACAGAATAGCTGAGGATTTGCTT
 TGGGCTCAGTGGGATATGTCAGAACAGAGATTATATTACATTGACCTGAAGAAATCAAGGAGTATCTTAA
 AATGTATCCAGTTTTATGCTGATGAGAGCTATAACTTAATGTTTGAAGTACCCTTGACATATCATTAA
 CAACTCAGGATTTAACTTGTCAACTTTGGATGTGATTATCATCAATACCGAGATAAATTTTCCAAACAC
 CTGACTCTGTGTGTTTTACCAACCATACAGGAAGTTGTGTGTATGTTACAGCCCGAAGTGTGCCTCTT
 GGGGACAAATCACATATTCAGTGTTTTACATTCATAAAGGACACAGCAAGACCTTCACCCTTCTCTTGA
 GAATGTTGGGTCACACATGACAAAGGCGATTACTTTTCTCAACCTTGACTATTATGTGGCTGTTTACTTA
 CCTGGTCATTTCTCCACCTACTTAATGTTCAACATCCAGACCTGATCTGCCACAATCTCTTCTGACAG
 GAAATAATGAAATGATTGATATGCTACCTCATTGCCCTTACAGTCATTGTCAGGGTCCCTGGTATTGGA
 TTGTTGTTCTGGAAAGCTCTATAGAGCACTGCTCAGCCAGTCGTCTTTATTACAGCTTCTGCAGAACACT
 TGCTTAGACTGTGAGAAGATGGCTGCGTTCGCTGCGCGCTCTACTGCGGTCAAGGTGCGCAGTTCTGG
 AAGCCAGATTATTCAGTGGATTCTGAGAATGTCTCTGCCTGCCATTCTTTGACCTCATTGAGGAATT
 TATAATTGCTTCTCATACTGGAGTGTATTCAGAGACAAGTAACATGGACAACTATTGCCACATTCC
 TCAGTGCTCACTTGAATACAGAAATCCTGGAATAACTCTTGACAGAAAGACATTGCATTGCCTCTTA
 TGAAGGTGCTCAGCTTTAAGGGCTACTGGGAAAACTGAACTCCAACCTAGAATATGTTAAGTACGCCAA
 GCCCACTTCCACTATAACAACAGTGTGGTCAGGAGAGAGTGGCACAACCTGATCTCTGAAGAGAAAAA
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 AAGCAAGAAATTTGGGGCCAAGATTAACACCCCTCCTGCAGGAGGAAGACAGCCACCAGCGGCTGCTCAT
 GGGGCTGATGGTGTCTGAGCTAAAAGACCATTTTTTGGAGACCTACAGGTGTAGAAAAAGAAAAATT
 GAACAGATGGTTCTGGACTACATTTCAAACCTGCTGGATCTCATTGCCACATCGTAGAAACCAATTGGA
 GGAAACATAATCTTCATTCTGGGTTCTCCACTTCAATAGTCGTGGCAGTGTGCTGAATTTGCAGTTTT
 TCACATCATGACCAGGATTCTGGAAGCTACAAACAGTTTGTGTTTACCTCTGCCTCCTGGTTTTCATACT
 CTGCACACCATCCTCGGGGTCAGTGTCTCCCTTTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGT
 TGCTTCTCACTGAAACAGCTGTGATAAGGCTCATGAAAGATCTGGATAATACAGAGAAAAATGAAAACT
 GAAATTCAGTATCATTGTGCGGCTTCTCCGCTTATTGGGCAGAAGATTGTAGACTTTGGGATCATCCT
 ATGAGTTCTAACATCATTTGCGGAACACGTGACGCGACTGCTTCAGAACTATAAGAAACAGCCTCGGA
 ATTCTATGATTAACAAGTCATCGTTCAAGTGTAGAAATTTGCTCTGAACTACTTCATTGAAATTCGAC
 AGATATAGAGTCTCCAATCAAGCCCTGTATCCTTTTGAAGGACATGACAATGTGGATGCAGAAATTTGA
 GAGGAAGCAGCTCTGAAACACACCGCATGCTTTTAGGCTTA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG222360 representing NM_017439
 Red=Cloning site Green=Tags(s)

MALRLVADFDLGKDVLPWLRQRAVSEASGAGSGGADVLENDYESLHVLNVERNNGNIIYTYKDDKGNVVF
 GLYDCQTRQNELLYTFEKDLQVFSCSVNSERTLLAASLVQSTKEGKRNELQPGSKCLTLLVEIHPVNNVK
 VLKAVDSYIWVQFLYPHIESHPLPENHLLLISEEKYIEQFRIHVAQEDGNRVVIKNSGHLPRDRIAEDFV
 WAQWDMSEQRLLYYIDLKKSRSILKCIQFYADESYNLMFEVPLDISLSNSGFKLVNFGCDYHQYRDKFSKH
 LTLCVFTNHTGSLCVCYSPKCASWGQITYSVFYIHKGHSTFTTSLENVGSHMTKGITFLNLDYYYVAVYL
 PGHFFHLLNVQHPDLICHNLFLTGNEMIDMLPHCPLQSLSGSLVLDCCSGKLYRALLSQSSLLQLLQNT
 CLDCEKMAALHCALYCGGAQFLEAQIIQWISENVSAHSFDLIQEFIIASSYWSVYSETSNMDKLLPHS
 SVLTWNTIIPGITLVTEIDIALPLMKVLSFKGYWEKLSNLEYVKYAKPHFHYNNSSVVRREWHNLISEEKT
 GKRRSAAYVRNILDNAVKVISNLEARNLGPRLTPLLQEEDSHQRLLMGLMVSELKDHFLRHLQGVEKKKI
 EQMVLDYISKLLDLICHIVETNWRKHNLSWVLFNSRGSAAEFVHFIMTRILEATNSLFLPLPPGFHT
 LHTILGVQCPLHNLHCIDSGVLLL TETAVIRLMKDLNTEKNEKLKFSIIVRLPPLIGQKICRLWDHP
 MSSNIISRNVHTRLLQNYKKQPRNSMINKSSFVEFLPLNYFIEILTDIESSNQALYPFEGHDNVDAEFV
 EEAALKHTAMLLGL

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN:	NM_017439
ORF Size:	2562 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_017439.4](#)

RefSeq Size: 3265 bp

RefSeq ORF: 2565 bp

Locus ID: 54103

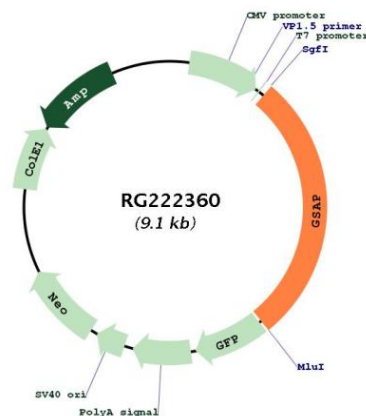
UniProt ID: [A4D1B5](#)

Cytogenetics: 7q11.23

Protein Families: Druggable Genome

Gene Summary: 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 RG222360