

Product datasheet for **RC208549**

NPAS2 (NM_002518) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NPAS2 (NM_002518) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NPAS2
Synonyms:	bHLHe9; MOP4; PASD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC208549 representing NM_002518
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATGAAGATGAGAAAGACAGAGCCAAGAGAGCTTCTCGAAACAAGTCTGAGAAGAAGCGTCGGGACC
 AGTTCAATGTTCTCATCAAAGAGCTCAGTTCCATGCTCCCTGGCAACACGCGGAAAAATGGACAAAACCAC
 CGTGTTGGAAAAGGTCATCGGATTTTTGCAGAAACACAATGAAGTCTCAGCGCAAACGGAATCTGTGAC
 ATTCAGCAAGACTGGAAGCCTTCATTCCTCAGTAATGAAGAATTCACCCAGCTGATGTTGGAGGCATTAG
 ATGGCTTCATTATCGCAGTGACAACAGACGGCAGCATCATCTATGTCTCTGACAGTATCACGCCTCTCCT
 TGGGCATTTACCGTCGGATGTCATGGATCAGAATTTGTTAAATTTCTCCAGAACAAGAATTTCAGAA
 GTTTATAAAATCCTTTCTCCCATATGCTTGTGACGGATCCCCCTCCCAAGAACTTAAATCTGACA
 GCGATTTAGAGTTTTATTGCCATCTTCTCAGAGGCAGCTTGAACCCAAAGGAATTTCCAATTATGAATA
 CATAAAATTTGTAGGAAATTTTCGCTCTTACAACAATGTGCCTAGCCCCCTCTGTAATGGTTTTGACAAC
 ACCCTTTCAAGACCTTGCCGGGTGCCACTAGGAAAGGAGGTTTGCTTCATTGCCACCGTTCTGTGGCAA
 CACCACAATTTCTAAAGGAAATGTGCATAGTTGACGAACCTTTAGAGGAATTCACCTCAAGGCATAGCTT
 GGAATGGAAATTTTTATTCTGGATCACAGAGCACCTCCAATCATAGGATACCTGCCTTTTGAAGTGCTG
 GGAACCTCAGGCTATGACTACTACCACATTGATGACCTGGAGCTCCTGGCCAGGTGTACCAGCACCTGA
 TGCAGTTTGGCAAAGGGAAGTCGTGTTGCTACCGGTTTCTGACCAAAGGTCAGCAGTGGATCTGGCTGCA
 GACTCACTACTACATCACCTACCATCAGTGAACCTCAAGCCCGAGTTTCATCGTGTGCACACACTCGGTG
 GTCAGTTACGCAGATGTCGGGTGGAAAGGAGGCAGGAGCTGGCTCTGGAAGACCCGCCATCCGAGGCC
 TCCACTCTCAGCACTAAAGGACAAGGGCTCAAGCCTGGAACCTGGCAGCACTTAAACACTCGACCT
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 ACAGCCATGTGAGAACCCACCTCCACTCCCAAGCTGATGGCAGAGGCCAGCACCCCGCTTTGCCAA
 GATCAGCCACCCTGCCCAAGAGTTACCTGTCCCCGGGCTCAGCCAGGCAGCCACCATGCCGGCCCTCT
 GCCTTCCCATCGTCTGCGACCTCACACAGCAGCTCCTGCCTCAGACGTTCTGCAGAGCACGCCCGCT
 CCCATGGCACAGTTTTCGGCACAGTTCAGCATGTTCCAGACCATCAAAGACCAGCTAGAGCAGCGGACGC
 GGATCCTGCAGGCCAATATCCGGTGGCAACAGGAAGAGCTCCACAAGATCCAGGAGCAGCTCTGCCTGGT
 CCAGGACTCCAACGTCCAGATGTTCTGCAGCAGCCAGCTGTATCCCTGAGCTTCAGCAGACCCAGCGA
 CCTGAGGCTCAGCAGCAGCTACAGCAAAGGTGAGTGCAGTACTCAGCCCCAGCTCGGGCGGGCCCCC
 AACTTCCAGGGCAGATCTCCTCTGCCAGGTACAAGCCAGCACCTGCTCAGAGAATCAAGTGTGATATC
 AACCCAGGGTCCAAGCCAATGAGAAGCTCACAGCTAATGCAGAGCAGCGGCCGCTCTGGAAGCAGCCTA
 GTGTCCCCGTTACAGCAGCGCCACAGCTGCGCTCCCGCCAAGTCTGAATCTGACCACACCTGCTTCCACCT
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 CGGCAAGTCAAGTACGCCAGAGCCAGACCGTGTTCAAAATCCAGACGCACACCCCGCCAACAGCAGCA
 GCGCCCCGATGCCGCTCTGCTGATGGGCAGGCGGTGCTCCACCCAGCTTCCCTGCCTCCCAACCATC
 GCCCTGCAGCCTGCACAGGCCCGCAGCAGCCACCCAGCACTACCTGCAGGTACAGGCACCAACCTCT
 TTGCACAGTGAGCAGCAGGACTCGCTACTTCTCTCCACCTACTACAACAGCCAGGGACCTGGGCTACC
 CCCAACCCCCAGCACAGCCAGCCCTACGTCTCCCCGAAGGGTCCAGCAGTCTGTCTGAGTCTGT
 AGGCTCCAGCAGCCGCCCGA

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208549 representing NM_002518
 Red=Cloning site Green=Tags(s)

MDEDEKDRAKRASRNKSEKKRRDQFNVL IKELSSMLPGNTRKMDKTTVLEKVIQFLQKHNEVSAQTEICD
 IQQDWKPSFSLNNEFTQLMLEALDGFIIAVTTDGSIIYVSDSITPLLGHLPDVMQNLNLFPEQEHSE
 VYKILSSHMLVTDSPSPEYLKSDSDLEFYCHLLRGSLNPKEFPTYEYIKFVGNFRSYNNVPSPCNGFDN
 TLSRPCRVP LGKEVCFIATVRLATPQFLKEMCIVDEPLEEFTSRHSLEWKFLFLDHRAPPIIGYLPFEVL
 GTSGDYHYHIDDELLARCHQHLMQFGKGKSCCYRFLTKGQQWIWLQTHYYITYHQWNSKPEFIVCTHSV
 VSYADVRVERRQELALEDPPEALHSSALKDKGSSLEPRQHFNTLDVGASGLNTSHSPSASSRSSHKSSH
 TAMSEPTSTPTKLMAEASTPALPRSATLPQELPVPGLSQAATMPAPLPSPSSCDLTQQLLPQTVLQSTPA
 PMAQFSAQFSMFQTIKDQLEQRTRILQANIRWQQEELHKIQEQLCLVQDSNVQMFLQQPAVSLSFSSTQR
 PEAQQQLQQRSAAVTQPQLGAGPQLPGQISSAQVTSQHLLRESSVISTQGPKPMRSSQLMQSSGRSGSSL
 VSPFSSATAALPPSLNL TTPASTSQDASQCQSPDFSHDRQLRLLL SQIQPMMPGSCDARQPSEVSRTG
 RQVKYAQSQT VFNPD AHPANSSAPMPVLLMGQAVLHPSFPASQPSPLQPAQARQQPPQHLYLQVQAPTS
 LHSEQQD SLLLSTYSQQPGTLGYPPPAQPQLRPPRRVSSLESSGLQQPPR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8113_g11.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_002518

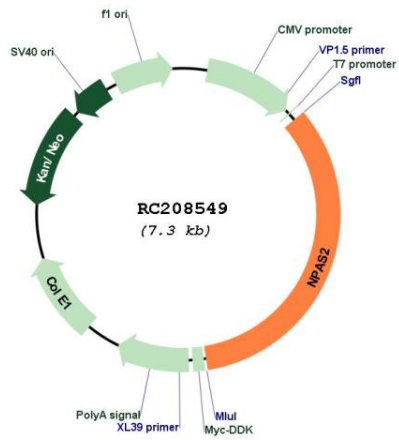
ORF Size: 2472 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:	<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_002518.4
RefSeq Size:	4004 bp
RefSeq ORF:	2475 bp
Locus ID:	4862
UniProt ID:	Q99743
Cytogenetics:	2q11.2
Domains:	PAS, HLH, PAC
Protein Families:	Druggable Genome, Transcription Factors
Protein Pathways:	Circadian rhythm - mammal
MW:	91.6 kDa
Gene Summary:	The protein encoded by this gene is a member of the basic helix-loop-helix (bHLH)-PAS family of transcription factors. A similar mouse protein may play a regulatory role in the acquisition of specific types of memory. It also may function as a part of a molecular clock operative in the mammalian forebrain. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC208549