

## Product datasheet for **SC312764**

### SEPTIN4 (NM\_080415) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SEPTIN4 (NM_080415) Human Untagged Clone
Tag:	Tag Free
Symbol:	SEPTIN4
Synonyms:	ARTS; BRADEION; C17orf47; CE5B3; H5; hCDCREL-2; hucep-7; MART; PNUTL2; SEP4; SEPT4
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_080415 edited  
 GGGTGACGGCGGTGCTGCGAGGTCGGCGCGCAGCTCCGCCGGGTCTCGGGCGCTGT  
 CCAGGCGGAGCCGGCCCCGCCGGGCTGCAGCCATGATCAAGCGTTTCTTGAGGACACC  
 ACGGATGATGGAGAACTGAGCAAGTTCGTGAAGGATTTCTCAGGAAATGCGAGCTGCCAC  
 CCACCAGAGGCTAAGACCTGGGCATCCAGGCCCAAGTCCCGGAGCCAAGGCCCCAGGCC  
 CCGGACCTCTATGATGATGACCTGGAGTTCAGACCCCCCTCGCGGCCCAAGTCTCTGAC  
 ACCAGCAGTACTTCTGTGCCCCAGCCCCCTCAGCCCCATCTGCCAGGCCCCGACGCCA  
 TGGGGCAAGCTTGATCCCTATGATTCTCTGAGGATGACAAGGAGTATGTGGCTTTGCA  
 ACCCTCCCAACCAAGTCCACCGAAAGTCCGTGAAGAAAGGCTTTGACTTTACCCTCATG  
 GTGGCAGGAGAGTCTGGCCTGGGCAATCCACACTTGTCAATAGCCTTCTCTACTGAT  
 CTGTACCGGGACCGAAACTTCTTGGTGTGAAGAGAGGATCATGCAAATGTGGAGATC  
 ACTAAGCATGCAGTGGACATAGAAGAGAAGGGTGTGAGGCTGCGGCTCACCATTGTGGAC  
 ACACCAGGTTTTGGGGATGCAGTCAACAACACAGAGTGTGGAAGCTGTGGCAGAATAC  
 ATTGATCAGCAGTTTGGCAGTATTTCCGAGACGAGAGTGGCCTGAACCGAAAGAATC  
 CAAGACAACAGGGTGCCTGCTGCTGTACTTTATCTCACCTTCGGCCATGGGTATGGT  
 CCAAGCTGAGGCTCCTGGCACCACCGGTGCTGTCAAGGGAACAGGCCAAGAGCACAG  
 GGGCAGGGCTGCCACTAGCAGGTGGTACAGGTTCTGTCCCCAGGCTCCGGCCATTGG  
 ATGTTGAATTCATGAAGGCCCTGCATCAGCGGGTCAACATCGTGCCTATCCTGGCTAAGG  
 CAGACACACTGACACCTCCCGAAGTGGACCACAAGAAACGCAAAATCCGGGAGGAGATTG  
 AGCATTTTGGAATCAAGATCTATCAATTCAGACTGTGACTCTGATGAGGATGAGGACT  
 TCAAATTCAGGACCAAGCCCTAAAGGAAAGCATCCCATTTGCAGTAATTGGCAGCAACA  
 CTGTAGTAGAGGCCAGAGGGCGGCGAGTTCGGGGTCTGACTCTACCCTGGGGCATCGTGG  
 AAGGACTGAAGGATGTGACGCGGGGAGACACATTATGAGAATACCGGGCACAGTGCATC  
 CAGAGCATGACCCGCTGGTGGTGAAGGAACGGAATCGCAACAAACTGACTCGGGAAAGT  
 GGTACCGACTTCCCATCCCTGCTGTCCACCAGGGACAGATCCAGAACTGAGAAGCTT  
 ATCCGAGAGAAAGATGAGGAGCTGCGGGGATGCAGGAGATGCTACACAAAATACAAAA  
 CAGATGAAGGAGAACTATTAAGTGGCTTTCAGCCCTGGATATTTAAATCTCCTCCTTTC  
 TTCCTGTCCATGCCGGCCCTCCAGCACCAGCTCTGCTCAGGCCCTTCAGCTACTGCC  
 ACTTCGCCTTACATCCCTGCTGACTGCCAGAGACTCAGAGGAAATAAAGTTAATAAAT  
 CTGTAGTGAGAATCCATCAGGCAACACAAAAAAA

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_080415 unedited  
 GTAGGACTTGATACGACTCCTATAGGGCGGCCGGAATTCGGCACGAGGCCTCGTGCCG  
 AATTCGGCACGAGGGGTGACGGCGGTGCTGCGAGGTCGGCGCGCAGCTCCGCCGGGT  
 CGCTCGGGCGCTGTCCAGGCGGAGCCGGCCCCGCCGGCTGCAGCCATGATCAAGCGTT  
 TCCTGGAGGACACCAGGATGATGGAGAACTGAGCAAGTTCGTGAAGGATTTCTCAGGAA  
 ATGCGAGCTGCCACCCACAGAGGCTAAGACCTGGGCATCCAGGCCCAAGTCCCGGAGC  
 CAAGGCCCCAGGCCCGGACCTCTATGATGATGACCTGGAGTTCAGACCCCTCGCGGC  
 CCCAGTCTCTGACAACCAGCAGTACTTCTGTGCCCCAGCCCCTCAGCCCATCTGCCA  
 GGCCCCGAGCCCATGGGGCAAGCTTGATCCCTATGATTCTCTGAGGATGACAAGGAGT  
 ATGTGGGCTTTGCAACCCTCCCAACCAAGTCCACCGAAAGTCCGTGAAGAAAGGCTTTG  
 ACTTTACCCTCATGGTGGCAGGAGTCTGGCCTGGGCAAATCCACACTTGTCAATAGCC  
 TCTTCTCACTGATCTGTACCGGACCGGAAACTTCTTGGTGTGAAGAGAGGATCATGC  
 AAATGTGGAGATCACTAAGCATGCAGTGGACATAGAAGAGAAGGGTGTGAGGCTGCGGC  
 TCACCATTGTGGACACACAGGTTTTGGGGATGCAGTCAACAACACAGAGTGTGGAAGC  
 CTGTGGCAGATACATTGATCAGCAGTTTGGAGCAGTATTTCCCGAGACGAGAGTGGCTGA  
 ACCGAAAGACATCCAAGACACAGGTGACTGCTGCCTGTACTTTATTCTACCCTTCGGC  
 CATGGGTATGGTTCCAGGCCTGAGGCTTCTGGCAAC

<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_080415 unedited CGTGATGCACCTTCAGGGCCGGAGAGGCACTGGGGAGGGGTCACAGGGATGCCACCCGGG ATCTGTTTCAGGAAACAGCTATGACCGCGGCCGCAATCTAGAGTCGAGTTTTTTTTTTTTT TTT AAAATTTATTTCCCTAATTCTCGGGCATTCCCAGGGATGTAAGGCAAAGTGGCATT ACCTAAAGGGGCTGACCAAACCTGGGGCGGGAGGGCCGGCTTGGACAGAAAAAAG AAAAAATTTAAATTTCCGGGGCTAAAACCCATTTAAATTTCCCTTCATCGGTTTTTG TTTTTGGGAACCATCTCCGGCACCCCGCACCTCCTCATTTTTTTTTTGAATAACCTT CTAATTTTCTGAATCTGCCCGGGGGAACACCGGGGATGGGAAATTCGGTCCCCTTTTC CCAATTCATTTGTTGAATTCCTTTCTTACCACCAGGCGGGTCATGCTTTGAATGCA TTGTCCCGGTATTTCTAAAAATGTGTCTCCCGTAAAACCTTAAGGTCCTTCAAATGC CCAGGGGTAAAGTCGACCCGAACCTCGCCGCCCTCTGGCCTTTATAAAGTGTGGTGCCA TACTGAAATGGGACGCTTTCTTTAGGGCTTGGTCCGATTTGAATTCCTCATCTCA TCAGAGTACAGTCTGGGAATTGATATATCTGATCAAAATGCTCATCTCTCCGGATTTC GTTTCTTGGGTCACTTCGGGAGTGTGAGTGTCTGCCTACCAGAAGCCATGTGACCCG TGATGCGCCTATGGAATCACATCCATGCCGAACCTGGAACAGAACTGT
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_080415
<b>Insert Size:</b>	1700 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.
<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_080415.1</a> , <a href="#">NP_536340.1</a>
<b>RefSeq Size:</b>	1911 bp
<b>RefSeq ORF:</b>	825 bp
<b>Locus ID:</b>	5414
<b>UniProt ID:</b>	<a href="#">O43236</a>
<b>Cytogenetics:</b>	17q22
<b>Domains:</b>	GTP_CDC

**Gene Summary:**

This gene is a member of the septin family of nucleotide binding proteins, originally described in yeast as cell division cycle regulatory proteins. Septins are highly conserved in yeast, *Drosophila*, and mouse, and appear to regulate cytoskeletal organization. Disruption of septin function disturbs cytokinesis and results in large multinucleate or polyploid cells. This gene is highly expressed in brain and heart. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. One of the isoforms (known as ARTS) is distinct; it is localized to the mitochondria, and has a role in apoptosis and cancer. [provided by RefSeq, Nov 2010]

Transcript Variant: This variant (2) differs in the 5' UTR and coding region and initiates translation at an alternate start codon, compared to variant 7. This transcript contains an early translation termination site, rendering this transcript a candidate for nonsense-mediated mRNA decay (NMD). However, the encoded protein (isoform 2, also known as ARTS, SEPT4\_i2), with distinct N- and C-termini compared to isoform 5, has been shown to be expressed in vivo, and characterized as a mitochondrial pro-apoptotic, tumor suppressor protein having a role in cancer (PMIDs: 11146656, 15254396).