

## Product datasheet for SC116291

### Neurogranin (NRGN) (NM\_006176) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Neurogranin (NRGN) (NM_006176) Human Untagged Clone
Tag:	Tag Free
Symbol:	Neurogranin
Synonyms:	hng; RC3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC116291 sequence for NM_006176 edited (data generated by NextGen Sequencing)

```
ATGGACTGCTGCACCGAGAACGCCTGCTCCAAGCCGGACGACGACATTCTAGACATCCC
CTGGACGATCCCCGGCCAAACGCGGCCGCCAAAATCCAGGCGAGTTTTCGGGGCCAC
ATGGCGCGGAAGAAGATAAAGAGCGGAGAGCGCGCCGGAAGGGCCGGCCCTGGGGG
CCTGGCGGAGCTGGGGTGGCCGGGGAGGCGGGCGGGCGGCCCCAGCGGAGACTAG
```

Clone variation with respect to NM\_006176.2

#### 5' Read Nucleotide Sequence:

```
>OriGene 5' read for NM_006176 unedited
NGTAGCGTCAAATTTGTAACGACTCATATGGGCGGCCGNAATTCGCACGAGNAGAG
AGAGAGAGACCGACCCGAGAGCAGAGCTGCTGTTTTCGGCGGGTCCGGCTGGCGCCGA
CTGCCCCAGAGCCCCACCCGGCACCACAGACCCACCCCGCCCTGCGCCAGCCTTC
GTCCCCGAGAGGACCCCGACACCAGCATGGACTGCTGCACCGAGAACGCCTGCTCCA
AGCCGGACGACGACATTCTAGACATCCCGCTGGACGATCCCGGCCAACGCGGCCGCC
CCAAAATCCAGGCGAGTTTTCGGGGCCACATGGCGCGGAAGAAGATAAAGAGCGGAGAGC
GCGGCCGAAGGGCCCGGCCCTGGGGGGCCTGGCGGAGCTGGGGTGGCCCGGGAGGCG
CGGGCGGGCCCCAGCGGAGACTAGGCCAGAAGTGGCATTTCAGAGTTCCCGAGGAG
AGATGGATGCCCGTCCCCTTCGCAGCGACGAGACTTCCCTGCCGTGTTTGTGACCCCT
CCTGCCAGCAACCTGCCAGCTACAGGAGCCCTGCGTCCCAGAGACTCCCTACCCAG
GCAGGCTCCGTGCGGAGTGCCTGAGTCCGTGCCCTTTTAGTTAGTTCTGCAGTCTAGTA
TGGTCCCCATTTGCCCTTCCACTCCACCCACCCTAAACCATGCGCTCCCAATCTTCCTT
CTTTTGTCTCGCCACCTCTTCCCGACCCAGCATGCAGCTCTGCCTCCGAGCCTCA
GTGCGCTTCTCGCGCACTGCGGAGGGCGCCCTAAGCGTCACCCAAGCACACTCACTT
AAAGAAAAACGAGTTTCTTTCTGTTCTGTGCGCAGCTAAAAAGGGCGCCCTACATCTCCG
TGA
```



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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_006176 unedited ATGGACCGCGGGCCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTTTGGGCATTCTCT TTATTGTTACATTCCAACCCAGCACAGTCACATGCACACACGGAGATCAGAAACCTTTC GGCCACAGCCCCAGGAGCCCGGGGGGGAGGGCGGGACCGACAGGGCGGGGGGGGGC CGTGGAAGACTCCTCCTACCGAGCCTCCAGGCGCTCGGCGTTTGCATAAACAAGAGAGC TGGAGAGGCTGCCCTCAACAGTGCCTGGGAAAGGGGAGGGAACGTGACAGGCAGGTGT GGGATAGGGACTTCTCTCCGGTCAGAGCAAGGGTCGTCCGAAACCAAACAACCTCTT CCTTCATCTCGCCCGGATCCAAAGTCTTGGGGCTAGGCTGGGCGGGAGTGGCACGGA GATGTAGGGCGCCCTTTTAGCTGCGCACAGAACGAAAGAACTCGTTTTTTCTTTAAGTG AGTGTGCTTGGGTGACGCTTAGGGCGCCCTCCGAGTGCAGCAGGAAAGCGCACTGAGG CTGCGGAGGCAGAGCTGCATGCTGGGTGCGGGAAGAGGTGGGCGAGAAGCAAAGAAGGA AGATTGGGAGCGCATGNGTTTAGGGTGGGTGGAGTGGGAAGGGGCCAAAGGGGGACCAT ACTAGACTGCAGAACTAACTAAAAGGGCACGGGACTCAGCGACTCCGCGACGGAGCCCGC CTTGGTGGAGGGGAATCTTTGGACCCACGGGGCTCCTGTTACTGGCAAGTTGCTTGGC AGAAAGGGGTCCCAACCCCGCAGGGGAAAACCTCCCCTGCGAAGGGGACCCGAAAACA TTTTTCGCCGGGACACTTGAAAAGCCCAATACTTGGCCTAACATACCTTTGGGGACCACC CCCCCCCCCG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_006176
<b>Insert Size:</b>	1160 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>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_006176.1</a> , <a href="#">NP_006167.1</a>
<b>RefSeq Size:</b>	1295 bp
<b>RefSeq ORF:</b>	237 bp
<b>Locus ID:</b>	4900
<b>UniProt ID:</b>	<a href="#">Q92686</a>
<b>Cytogenetics:</b>	11q24.2
<b>Domains:</b>	IQ
<b>Protein Families:</b>	Druggable Genome

**Gene Summary:**

Neurogranin (NRGN) is the human homolog of the neuron-specific rat RC3/neurogranin gene. This gene encodes a postsynaptic protein kinase substrate that binds calmodulin in the absence of calcium. The NRGN gene contains four exons and three introns. The exons 1 and 2 encode the protein and exons 3 and 4 contain untranslated sequences. It is suggested that the NRGN is a direct target for thyroid hormone in human brain, and that control of expression of this gene could underlay many of the consequences of hypothyroidism on mental states during development as well as in adult subjects. [provided by RefSeq, Jul 2008]  
Transcript Variant: This variant (1) uses an alternate splice acceptor site in a 3' UTR exon.