

#### OriGene Technologies, Inc.

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# Product datasheet for RC201209

### Neurogranin (NRGN) (NM\_006176) Human Tagged ORF Clone

### **Product data:**

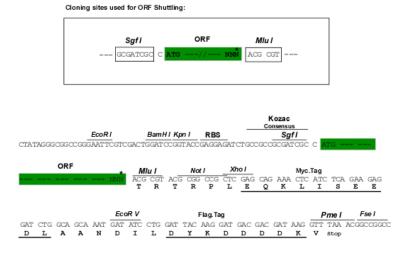
Product Type:	Expression Plasmids
Product Name:	Neurogranin (NRGN) (NM_006176) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Neurogranin
Synonyms:	hng; RC3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	<pre>&gt;RC201209 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)</pre>
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC
	ATGGACTGCTGCACCGAGAACGCCTGCTCCAAGCCGGACGACGACATTCTAGACATCCCGCTGGACGATC CCGGCGCCAACGCGGCCGCCGCCAAAATCCAGGCGAGTTTTCGGGGGCCACATGGCGCGGAAGAAGATAAA GAGCGGAGAGCGCGGCCGGAAGGGCCCGGGCCCTGGGGGGGCCTGGCGGAGCTGGGGTGGCCCGGGAGGC GCGGGCGGCGGCCCCAGCGGAGAC
	ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAG <b>GTTTAA</b>
Protein Sequence:	<pre>&gt;RC201209 protein sequence Red=Cloning site Green=Tags(s)</pre>
	MDCCTENACSKPDDDILDIPLDDPGANAAAAKIQASFRGHMARKKIKSGERGRKGPGPGGPGGAGVARGG AGGGPSGD
	TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Chromatograms:	https://cdn.origene.com/chromatograms/mk6143_b06.zip
<b>Restriction Sites:</b>	Sgfl-Mlul



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#### **Cloning Scheme:**



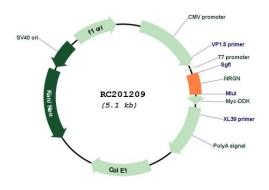
\* The last codon before the Stop codon of the ORF

ACCN:	NM_006176
ORF Size:	234 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. <u>More info</u>
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> <li>Centrifuge at 5,000xg for 5min.</li> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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>
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM 006176.3</u>
RefSeq Size:	1235 bp

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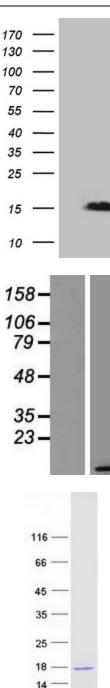
	Neurogranin (NRGN) (NM_006176) Human Tagged ORF Clone – RC201209
RefSeq ORF:	237 bp
Locus ID:	4900
UniProt ID:	<u>Q92686</u>
Cytogenetics:	11q24.2
Domains:	IQ
Protein Families	Druggable Genome
MW:	7.6 kDa
Gene Summary:	Neurogranin (NRGN) is the human homolog of the neuron-specific rat RC3/neurogranin 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]

## Product images:



Circular map for RC201209

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HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NRGN (Cat# RC201209, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NRGN (1:500) (Cat# [TA811753]). Positive lysates [LY416815] (100ug) and [LC416815] (20ug) can be purchased separately from OriGene.

Western blot validation of overexpression lysate (Cat# [LY426667]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC224996] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified NRGN protein (Cat# [TP301209]). The protein was produced from HEK293T cells transfected with NRGN cDNA clone (Cat# RC201209) using MegaTran 2.0 (Cat# [TT210002]).

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