

Product datasheet for **SC301476**

NRG3 (NM_001010848) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NRG3 (NM_001010848) Human Untagged Clone
Tag:	Tag Free
Symbol:	NRG3
Synonyms:	HRG3; pro-NRG3
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

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>OriGene ORF sequence for NM_001010848 edited
ATGAGTGAAGGGGCGCCGCTGCCTCGCCACCTGGTGCCGCTTCGGCAGCCGCCGCTCG
GCCGAGGAGGGCACCGCGCGCGCTGCGGCGGGCAGCGGCGGGGGCCGGACGGC
GGCGGCGAAGGGGCGGCCGAGCCCCCGGGAGTTACGCTGTAGCGACTGCATCGTGTGG
AACCGGCAGCAGACGTGGCTGTGCGTGGTACCTCTGTTTCATCGGCTTCATCGGCCTGGG
CTCAGCCTCATGCTTCTCAAATGGATCGTGGTGGGCTCCGTC AAGGAGTACGTGCCACC
GACCTAGTGGACTCCAAGGGGATGGGCCAGGACCCCTTCTCCTCTCCAAGCCCAGCTCT
TTCCCAAGGCCATGGAGACCACCACCTACCCTTCCACCACGTCCCCGCCACCCCC
TCCGCCGGGGTCCGCTCCTCCAGGACGCCAACCGGATTAGCACTCGCCTGACCACC
ATCACGCGGGCGCCACTCGCTTCCCCGGGCACCGGTGCCATCCGGGCCAGCCCGCGC
TCCACCACAGCACGGAACACTGCGGCCCTGCGACGGTCCCGTCCACCACGGCCCGTTC
TTCAGTAGCAGCAGCTGGGCTCCCGACCCCGGTGCCAGGAACCTCAAGTACCCAGGCA
ATGCCCTCTGGCCTACTGCGGCATACGCTACCTCCTCTACCTTACGATTCTACTCCC
TCCTGGACCCTGTCTCCCTTTCAGGATGCTGCCTCCTCTTCTTCTTCTTCTCTCTCC
GCTACCACCACCACAGAACTAGCACCAGCCCAAAATTTTCATACGACGACATATTCC
ACAGAGCGATCCGAGCACTTCAAACCCTGCCGAGACAAGGACCTTGCATACTGTCTCAAT
GATGGCGAGTGCTTTGTGATCGAAACCCTGACCGGATCCCATAAACACTGTCCGTGCAAA
GAAGGCTACCAAGGAGTCCGTTGTGATCAATTTCTGCCGAAAACCTGATCCATCTTATCG
GATCCAAACCACTTGGGGATTGAATTCATGGAGAGTGAAGAAGTTTATCAAAGGCAGGTG
CTGTCAATTTTCATGTATCATCTTTGGAATTGTCATCGTGGGCATGTTCTGTGCAGATTCT
TACTTCAAAGCAAGAAACAAGCTAAACAAATCCAAGAGCAGCTGAAAGTGCCACAAAAT
GGTAAAAGCTACAGTCTCAAAGCATCCAGCACAATGGCAAAGTCAGAGAACTTGGTGAAG
AGCCATGTCCAGCTGAAAAATTTCAAAGGTGGAAAGGCATCCTGTGACTGCATTGGAG
AAAATGATGGAGTCAAGTTTTGTGCGCCCCAGTCATTCCCTGAGGTCCCTTCTCCTGAC
AGAGGAAGCCAGTCTGTCAAACCCACAGGAGTCTATCCTCTTGCTGCAGCCAGGGCAA
AGAAGTGGCATGCTCCATAGGAATGCCTTCAGAAGGACACCCCGTCAACCCGAAGTAGG
CTAGGTGGAATTTGTGGGACCAGCATATCAGCAACTCGAAGAATCAAGGATCCAGACCAG
GATACGATACCTTGCCAAGGGTATTCATCCAGTGGTTAAAAACCCAACGAAATACATCA
ATAAATATGCAACTGCCTTCAAGAGAGACAAACCCTATTTTAAATAGCTTGGAGCAAAAG
GACCTGGTGGGCTATTTCATCCACAAGGGCCAGTTCTGTGCCCATCATCCCTTTCAGTGGT
TTAGAGGAAACCTGCCTGCAAATGCCAGGGATTTCTGAAGTCAAAGCATCAAATGGTGC
AAAAACTCTATTGAGCTGACGTTGTCAATGTGAGTATCCAGTCAGCGATTGTCTTATA
GCAGAACAACAAGAAGTAAAAATTTGCTAGAACTGTCCAGGAGCAGATCCGAATTCCTG
ACTGATGCCAGACGGTCAGAAGACTACGAACTGGCCAGCGTAGAAACCGAGGACAGTGCA
AGCGAAAAACAGCCTTTCTCCCTGAGTCCCACAGCCAAATCAGAACGAGAGGGCGCAA
TTTGTCTTAAGAAATGAAATACAAAGAGACTCTGCATTGACCAAGTGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001010848 unedited
 GTAAACGACTCACTATAGCGCGCCGCAATTTCGCACGAGGCAGGGAGCGGATTTGCATGC
 GGCCGCGCGGCCGCTGCCTGCGCCGAGCCCGCCGCGCCGCGCGGAGCCCGCGCCCGC
 CCCGCGCCCGGCCGCGCGGCCCATGCCTCTGCCGCGGCCCTCGGGGGGGCGAAGGTGA
 AGACCGGCTCCTAGGATGAGTGAAGGGGCGGCCGCTGCCTGCCACCTGGTGCCGCTTCG
 GCAGCCCGCCCTCGGCCGAGGAGGGCACCGCGCGGCTGCGGCGCGGCAGCGGGCGGC
 GGGGGCCCGGACGCGCGCGGAAGGGGCGGCCGAGCCCCCGGGAGTTACGCTGTAGC
 GACTGCATCGTGTGGAACCGGCAGCAGACGTGGCTGTGCGTGGTACCTCTGTTTCATCGGC
 TTCATCGGCTGGGGCTCAGCCTCATGCTTCTCAAATGGATCGTGGTGGGCTCCGTCAAG
 GAGTACGTGCCACCGACCTAGTGGACTCCAAGGGGATGGGCCAGGACCCCTTCTTCTCCTC
 TCCAAGCCAGCTCTTTCCCAAGGCCATGGAGACCACCACCCTACCCTTNCACCACG
 TNCCTCCGACCCCTCCGCGGGGGTCCGCTCCTCCAGGACGCCAACCAGGATTAGC
 ACTCGCTGACCACCATCAGCGGGGCGCCACTCGCTTCCCGGCACGGGTGCCATCC
 GGGCCAGCCCGCTTACCACAGCACGGAACACTGCGGCCCTGCGACGGTCCCGTCCA
 CCACGGNCCCGGTTCTCAGTAGCAGCACGCTGGGCTTCCGACCCCGGTGCCAGAACTC
 CAAGTACCAGCCAATGCCTCCTGGCCTACTGCGCATACGCTACC

3' Read Nucleotide Sequence:

>OriGene 3' genomic read for NM_001010848 unedited
 AAGGTCCATCTAGNANCGCGCACGCATTCCANGATCGGTTTTTTTTTTTTTTTTTTTTTT
 TTTTTTTTTTTTTTTTTTTTTTTGCTTTCAAATAACGGGGCCTTTTTATTTAAACAGG
 GAAACATAACAACCTCAACCCCAATAATTGGGAAAAAACTGGGTATGGGAACCCTA
 ATTTCCCATATGTCCATGAAAGTGAGGGGAAATAAACAGACCAATCTTCAGGAAAGGT
 TTCAGTTCACCTAACAGGGGAAAAATATTGGTTTATTCCTCAATGAACCTCCACACAA
 TTTACTGTTCTTTGGGGGCTTCTGGGAACCAATAATCTGGGGATTTTATTTCAAC
 AATTTATTTTCCCTACTAACCCAGAAAGCCCAAGCCTTGGTCCACACATAGCAAACCT
 GCTTTAAATAAATGGGAATGAGGGTATGAGAAAGCCAAATGGGAACCGGCAATTTGGTA
 ATGGCTTGGGTTAATAATTAAGGAGGCTGATTCAAAATAAACACCCCTCCCTGATGA
 ACCCACCTTATGATACCGGTATCATTAAAGAGCCATAGTTGATCCCTCAAAGTATTC
 ACATCAAAAAATGGGCTAAACAGTGTCAAAGTTTTATACGACCCCCCTGCCAGTGAC
 CCTGATTAAGAACTAAGTGAATTTTACTTAATGGAAAAATTTAAGGGGAAAGATCTT
 AGAGGGAAAAATTTTTCTGAATAGAAGATTCCCGGAGGTTCAAAAAATTTTAAACA
 GCGTAATTACCCGCACACTGGCCACCCTTCCCCCATGAAAACCTGGGCTACAACATAT
 GTTCCCCCGTGAACAATCCCCACACACCCCCCTCC

Restriction Sites:

NotI-NotI

ACCN:

NM_001010848

Insert Size:

4000 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:	There are 4 nucleotide differences between the OriGene clone and the NCBI reference ORF. OriGene considers these to be polymorphisms and to reflect the natural differences between individuals. These result in the substitution of 1 amino acid and deletion of 1 amino acid.
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:	<u>NM_001010848.2</u> , <u>NP_001010848.2</u>
RefSeq Size:	2091 bp
RefSeq ORF:	2091 bp
Locus ID:	10718
UniProt ID:	<u>P56975</u>
Cytogenetics:	10q23.1
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	ErbB signaling pathway
Gene Summary:	<p>This gene is a member of the neuregulin gene family. This gene family encodes ligands for the transmembrane tyrosine kinase receptors ERBB3 and ERBB4 - members of the epidermal growth factor receptor family. Ligand binding activates intracellular signaling cascades and the induction of cellular responses including proliferation, migration, differentiation, and survival or apoptosis. This gene encodes neuregulin 3 (NRG3). NRG3 has been shown to activate the tyrosine phosphorylation of its cognate receptor, ERBB4, and is thought to influence neuroblast proliferation, migration and differentiation by signalling through ERBB4. NRG3 also promotes mammary differentiation during embryogenesis. Linkage studies have implicated this gene as a susceptibility locus for schizophrenia and schizoaffective disorder. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional transcript variants have been described but their biological validity has not been verified.[provided by RefSeq, Sep 2009]</p> <p>Transcript Variant: This variant (1) encodes isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>