

Product datasheet for **SC124810**

NRG1 (NM_013956) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NRG1 (NM_013956) Human Untagged Clone
Tag:	Tag Free
Symbol:	NRG1
Synonyms:	ARIA; GGF; GGF2; HGL; HRG; HRG1; HRGA; MST131; MSTP131; NDF; NRG1-IT2; SMDF
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC124810 sequence for NM_013956 edited (data generated by NextGen Sequencing)

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ATGTCCGAGCGCAAAGAAGGCAGAGGCCAAAGGGAAGGGCAAGAAGAAGGAGCGAGGCTCC
GGCAAGAAGCCGGAGTCCGCGGGCGGCGAGCCAGAGCCAGCCTTGCCTCCCCAATTGAAA
GAGATGAAAAGCCAGGAATCGGCTGCAGGTTCCAACTAGTCCTTCGGTGTGAAACCAGT
TCTGAATACTCCTCTCTCAGATTCAAGTGGTTCAAGAATGGGAATGAATTGAATCGAAAA
AACAAACCACAAAATATCAAGATACAAAAAAGCCAGGGAAGTCAGAAGTTCGCATTAAAC
AAAGCATCACTGGCTGATTCTGGAGAGTATATGTGCAAAGTGATCAGCAAATTAGGAAAT
GACAGTGCCTCTGCCAATATCACCATCGTGAATCAAACGAGATCATCACTGGTATGCCA
GCCTCACTGAAGGAGCATATGTGTCTTCAGAGTCTCCATTAGAATATCAGTATCCACA
GAAGGAGCAAATACTTCTCATCTACATCTACATCCACCACTGGGACAAGCCATCTTGTA
AAATGTGCGGAGAAGGAGAAAACCTTCTGTGTGAATGGAGGGGAGTGCTTCATGGTGAAA
GACCTTTCAAACCCCTCGAGATACTTGTGCAAGTGCCAAATGAGTTTACTGGTATCGC
TGCCAAAACACTACGTAATGGCCAGCTTCTACAAGCATCTTGGGATTGAATTTATGGAGGCG
GAGGAGCTGTACCAGAAGAGAGTGTGACCATAACCGGCATCTGCATCGCCCTCCTTGTG
GTGCGGCATCATGTGTGTGGTGGCCTACTGCAAAACCAAGAAACAGCGGAAAAAGCTGCAT
GACCGTCTTCGGCAGAGCCTTCGGTCTGAACGAAACAATATGATGAACATTGCCAATGGG
CCTCACCATCCTAACCCACCCCGAGAATGTCCAGCTGGTGAATCAATACGTATCTAAA
AACGTCATCTCCAGTGAGCATATTGTTGAGAGAGAAGCAGAGACATCCTTTTCCACCAGT
CACTATACTTCCACAGCCCATCACTCCACTACTGTCAACCAGACTCCTAGCCACAGCTGG
AGCAACGGACACACTGAAAGCATCCTTTCCGAAAGCCACTCTGTAATCGTGATGTCATCC
GGAGGCCCTCGTGAATGTAACAGCTTCTCAGGCATGCCAGAGAAAACCCCTGATTCTCTAC
CGAGACTCCTCATAGTAAAAGGTATGTGTCAGCCATGACCACCCCGGCTCGTATGTCA
CCTGTAGATTTCCACACGCCAAGCTCCCCCAAATCGCCCTTCGAAATGTCTCCACCC
GTGTCCAGCATGACGGTGTCCATGCCTTCCATGGCGGTGACGCCCTTCATGGAAGAAGAG
AGACCTCTACTTCTCGTGACACCACCAAGGCTGCGGGAGAAGAAGTTTGACCATCACCT
CAGCAGTTCAGCTCCTTCCACCACAACCCCGGCATGACAGTAACAGCCTCCCTGCTAGC
CCCTTGAGGATAGTGGAGGATGAGGAGTATGAAACGACCCAAGAGTACGAGCCAGCCCAA
GAGCCTGTAAAGAACTCGCCAATAGCCGGCGGGCCAAAAGAACCAAGCCCAATGGCCAC
ATTGCTAACAGATTGGAAGTGGACAGCAACACAAGCTCCAGAGCAGTAAGTCAAGAGT
GAAACAGAAGATGAAAGAGTAGGTGAAGATACGCCTTTCTGGGCATACAGAACCCCTG
GCAGCCAGTCTTGAGGCAACACCTGCCTTCCGCCTGGCTGACAGCAGGACTAACCAGCA
GTCCGCTTCTCGACACAGGAAGAAATCCAGGCCAGGCTGTCTAGTGAATTGCTAACCAA
GACCCTATTGCTGTATAA
    
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Clone variation with respect to NM_013956.3
 113 g=>a;1862 g=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_013956 unedited
 ATACGACTCTATAGGGCGGCCGGAATTCGCCGAGGGGCTCGCGCGGAGGCCAGGAGCT
 GAGCGGCGGGCGGCTGCCGGACGATGGGAGCGTGAGCAGGACGGTGATAACCTCTCCCCGA
 TCGGGTTGCGAGGGCGCCGGGCAGAGGCCAGGACGCGAGCCGACGCGGGGACCCATC
 GACGACTTCCGGGGCGACAGGAGCAGCCCCGAGAGCCAGGGCGAGCGCCGTTCCAGGT
 GGCCGGACCGCCCGCCGCTCCGCGCCGCTCCCTGCAGGCAACGGGAGACGCCCCCGC
 GCAGCGGAGCGCCTCAGCGCGGCGCTCGCTCTCCCCATCGAGGGACAACTTTTCCCA
 AACCCGATCCGAGCCCTTGGACAAACTCGCCTGCGCCGAGAGCCGTCCGCGTAGAGCGC
 TCCGTCTCCGGCGAGATGTCCGAGCGCAAAGAAGGCAGAGGCAAAGGAAAGGCAAGAAG
 AAGGAGCGAGGCTCCGGCAAGAAGCCGGAGTCCGCGGGGCGAGCCAGAGCCAGCCTTG
 CCTCCCCAATTGAAAGAGATGAAAAGCCAGGAATCGGCTGCAGGTTCCAACTAGTCCTT
 CGGTGTGAAACCAGTTCTGAATACTCTCTCAGATTCAAGTGGTTCAAGAATGGGAAT
 GAATTGAATCGAANAACAAACCACAAAATATCAAGATACAAAAAGCCAGNGGAAGTC
 AGAACTTCGATTAACAAAGCATACTGGCTGATTCTGGAGATATATGTGCANAGTGAT
 CAGCAATTAGAAATGACAGTGCCTCTGCCATATCACCATCGTGGATCAAACGAGATCTC
 ACTGGTATGCCAGNCTCACTGAAGAGCCTAATGTGCT

3' Read Nucleotide Sequence:

>Forward primer walk for NM_013956 unedited
 NTTCTCCGCGAAAAATCAGGCACANCAGCCACTGGGGGCCAAAAGGACGTCTTAATG
 GCACAGGAGGCCCTNCGTGATGTAAACAGTTCTCAGGCATGCCAGAGAAACCCCTGATT
 CCTACCGAGACTCTCCTCATAGTAAAAGTATGTGTGAGCCATGACCACCCCGGCTCGTA
 TGTACCTGTAGATTTCCACACGCCAAGCTCCCCAAATCGCCCCCTTCGAAAATGTCTC
 CACCCGTGTCCAGCATGACGGTGTCCATGCCTCCATGGCGGTACGCCCTTCATGGAAG
 AAGAGAGACCTCTACTTCTCGTGACACCAAGGCTGCGGGAGAAGAAGTTTGACCATC
 ACCCTCAGCAGTTCAGCTCCTTCCACCACAACCCGCGCATGACAGTAACAGCCTCCCTG
 CTAGCCCCCTTGAGGATAGTGGAGGATGAGGAGTATGAAACGACCCAAGAGTACGAGCCAG
 CCCAAGAGCCTGTAAAGAACTCGCCAATAGCCGGCGGGCCAAAAGACCAAGCCCAATGG
 CCACATTGCTAACAGATTGGAAGTGGACAGCAACACAAGCTCCCAGAGCAGTAACACAGA
 GAGTGAAACAGAAAGATGAAAGAGTAGGTGAAGATACGCCTTTCTGGGCATACAGAACCC
 CCTGGCAGCCAGTCTTGAGGCAACACCTGCCTTCCGCTTGCTGACAGCAGGACTAACCC
 CGCAGTTCCGCTTCTCGACACAGGAAAAATCCAGGCCACAGCTGGCTAGTGGTAATTGG
 TAACCCAAAAACCTTTTGTGTTTAAAAACCTAAATAAACCCCTTGATTTCCTGGGA
 AAACCTTTATTTTATTTTAAAAAGGTTTTTCCCTCTAAAATAAAAAACAT

Restriction Sites:

NotI-NotI

ACCN:

NM_013956

Insert Size:

4100 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](#)

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:

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_013956.2](#), [NP_039250.2](#)

RefSeq Size: 2583 bp

RefSeq ORF: 1938 bp

Locus ID: 3084

UniProt ID: [Q02297](#)

Cytogenetics: 8p12

Protein Families: Druggable Genome, Secreted Protein, Transcription Factors, Transmembrane

Protein Pathways: ErbB signaling pathway

Gene Summary:

The protein encoded by this gene is a membrane glycoprotein that mediates cell-cell signaling and plays a critical role in the growth and development of multiple organ systems. An extraordinary variety of different isoforms are produced from this gene through alternative promoter usage and splicing. These isoforms are expressed in a tissue-specific manner and differ significantly in their structure, and are classified as types I, II, III, IV, V and VI. Dysregulation of this gene has been linked to diseases such as cancer, schizophrenia, and bipolar disorder (BPD). [provided by RefSeq, Apr 2016]

Transcript Variant: This variant (HRG-beta1), which uses the type I promoter, encodes isoform HRG-beta1 (also known as NDF-beta1a or HRG-beta1a). 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.