

## **Product datasheet for SC312598**

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## NRG1 (NM\_013958) Human Untagged Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: NRG1 (NM\_013958) 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: pCMV6-XL4

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_013961 edited

GGGCTCGCGCGGAGGCCAGGAGCTGAGCGGCGGCGGCTGCCGGACGATGGGAGCGTGAGC AGGACGGTGATAACCTCTCCCCGATCGGGTTGCGAGGGCCCGGGCAGAGGCCAGGACGC GAGCCGCCAGCGGGGACCCATCGACGACTTCCCGGGGCGACAGGAGCAGCCCCGAGAG CCAGGGCGAGCGCCGTTCCAGGTGGCCGGACCGCCCGCCGCGCGCCGCGCCCCCCC CCATCGAGGGACAAACTTTTCCCAAACCCGATCCGAGCCCTTGGACCAAACTCGCCTGCG CCGAGAGCCGTCCGCGTAGAGCGCTCCGTCTCCGGCGAGATGTCCGAGCGCAAAGAAGGC GCGGGCAGCCAGAGCCCAGCCTTGCCTCCCCAATTGAAAGAGATGAAAAGCCAGGAATCG GCTGCAGGTTCCAAACTAGTCCTTCGGTGTGAAACCAGTTCTGAATACTCCTCTCAGA ATACAAAAAAGCCAGGGAAGTCAGAACTTCGCATTAACAAAGCATCACTGGCTGATTCT GGAGAGTATATGTGCAAAGTGATCAGCAAATTAGGAAATGACAGTGCCTCTGCCAATATC ACCATCGTGGAATCAAACGAGATCATCACTGGTATGCCAGCCTCAACTGAAGGAGCATAT GTGTCTTCAGAGTCTCCCATTAGAATATCAGTATCCACAGAAGGAGCAAATACTTCTTCA TCTACATCTACATCCACCACTGGGACAAGCCATCTTGTAAAATGTGCGGAGAAGGAAAA ACTTTCTGTGTGAATGGAGGGGAGTGCTTCATGGTGAAAGACCTTTCAAACCCCTCGAGA TACTTGTGCAAGTGCCCAAATGAGTTTACTGGTGATCGCTGCCAAAACTACGTAATGGCC

AGCTTCTACAGTACGTCCACTCCCTTTCTGTCTCTGCCTGAATAG

**Restriction Sites:** Please inquire **ACCN:** NM 013958



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**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 <a href="mailto:customport@origene.com">customport@origene.com</a> 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. <u>More info</u>

**OTI Annotation:** 

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

Components:

Cytogenetics:

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.

**RefSeg:** NM 013958.1, NP 039252.1

 RefSeq Size:
 1715 bp

 RefSeq ORF:
 726 bp

 Locus ID:
 3084

 UniProt ID:
 Q02297

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

**Protein Pathways:** ErbB signaling pathway

8p12



## **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-beta3), which uses the type I promoter, lacks multiple 3' exons but contains an alternate 3' terminal exon that results in an early stop codon, compared to variant HRG-beta1. The resulting isoform (HRG-beta3, also known as GGF or GGFHFB1) is shorter at the C-terminus, compared to isoform HRG-beta1.