

## **Product datasheet for SC312845**

## OriGene Technologies, Inc.

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## NRG1 (NM\_013959) Human Untagged Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: NRG1 (NM\_013959) 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-XL5

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

Fully Sequenced ORF: >OriGene ORF sequence for NM\_013959 edited

**Restriction Sites:** Please inquire **ACCN:** NM 013959

**Insert Size:** 1500 bp

**OTI Disclaimer:** 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).



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**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:

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: <u>NM 013959.1</u>, <u>NP 039253.1</u>

RefSeq Size: 1860 bp
RefSeq ORF: 891 bp
Locus ID: 3084
UniProt ID: Q02297
Cytogenetics: 8p12
Domains: EGF, EGF

**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 (SMDF), which uses the type III promoter, is expressed mainly in the nervous system. It lacks multiple 5' and 3' exons but has alternate 5' and 3' terminal exons, and it thus differs in the 5' and 3' coding regions and in both UTRs, compared to variant HRG-beta1. The resulting isoform (SMDF, also known as NRG-III-beta3) has distinct N-

and C-termini and is shorter than isoform HRG-beta1.