

Product datasheet for **SC327049**

NRG3 (NM_001165973) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NRG3 (NM_001165973) Human Untagged Clone
Tag:	Tag Free
Symbol:	NRG3
Synonyms:	HRG3; pro-NRG3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >SC327049 representing NM_001165973.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGGAGTGTGGTATACCTCCAACCCTTGTATGCGTTGGGAGAGGAGGGGGACTACACACGATCAATATA
ATCATCTGGTATTATTTTCCTTCTGCTGGAGGACTTGCTTTAACATTTCAAGTAGTGTGGTCTGCTG
CTGACGAATTCATACAAATTTTATACGACGACATATTCCACAGAGCGATCCGAGCACTTCAAACCTGC
CGAGACAAGGACCTTGCACTACTGTCTCAATGATGGCGAGTGCTTTGTGATCGAAACCTGACCGGATCC
CATAAACACTGTCGGTGCAAAGAAGGCTACCAAGGAGTCCGTTGTGATCAATTTCTGCCAAAACCTGAT
TCCATCTTATCGGATCCAACAGACCACTTGGGGATTGAATTCATGGAGAGTGAAGAAGTTTATCAAAGG
CAGGTGCTGTCAATTTTATGTATCATCTTTGGAATTGTCATCGTGGGCATGTTCTGTGCAGCATTCTAC
TTCAAAGCAAGAAACAAGCTAAACAAATCCAAGAGCAGCTGAAAGTGCCACAAATGGTAAAAGCTAC
AGTCTCAAAGCATCCAGCACAATGGCAAAGTCAGAGAACTTGGTGAAGAGCCATGTCCAGCTGCAAAAT
TATTCAAAGGTGAAAGGCATCCTGTGACTGCATTGGAGAAAATGATGGAGTCAAGTTTTGTGGCCCC
CAGTCATTCCCTGAGGTCCCTTCTCCTGACAGAGGAAGCCAGTCTGTCAAACACCACAGGAGTCTATCC
TCTTGCTGCAGCCAGGGCAAAGAAGTGGCATGCTCCATAGGAATGCCTTCAAGAGACACCCCCGTC
CCCCGAAGTAGGCTAGGTGGAATTGTGGGACCAGCATATCAGCAACTCGAAGAATCAAGGATCCCAGAC
CAGGATACGATACCTTGCCAAGGGATAGAGGTCAGGAAGACTATATCCCACCTGCCTATACAGCTGTGG
TGTGTTGAAAGACCCCTGGACTTAAAGTATTATCCAGTGGTTTTAAAAACCAACGAAATACATCAATA
AATATGCAACTGCCTTCAAGAGAGACAAACCCCTATTTTAAAGCTTGGAGCAAAAGGACCTGGTGGGC
TATTCATCCACAAGGGCCAGTTCTGTGCCATCATCCCTCAGTGGTTTAGAGGAAACCTGCCTGCAA
ATGCCAGGGATTTCTGAAGTCAAAGCATCAAATGGTGCAAAAACCTCTATTTCAGCTGACGTTGTCAAT
GTGAGTATTCCAGTCAGCGATTGTCTTATAGCAGAACAACAAGAAGTAAAATATTGCTAGAAACTGTC
CAGGAGCAGATCCGAATTCGACTGATGCCAGACGGTCAGAAGACTACGAACTGGCCAGCGTAGAAACC
GAGGACAGTGCAAGCGAAAAACAGCCTTTCTCCCTGAGTCCCACAGCCAAATCAGAACGAGAGGGC
CAATTTGTCTTAAGAAATGAAATACAAAGAGACTCTGCATTGACCAAGTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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Restriction Sites: SgfI-MluI

ACCN: NM_001165973

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).

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: [NM_001165973.1](#)

RefSeq Size: 3348 bp

RefSeq ORF: 1500 bp

Locus ID: 10718

UniProt ID: [P56975](#)

Cytogenetics: 10q23.1

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: ErbB signaling pathway

MW: 56 kDa

Gene Summary: 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]

Transcript Variant: This variant (3) has multiple differences in the presence and absence of exons in the 5' and 3' ends, compared to variant 1. These differences produce a unique 5' UTR and cause translation initiation at a unique start codon, compared to variant 1. The encoded protein (isoform 3; also known as hFBNRG3) has a shorter and distinct N-terminus and 24 additional aa in its C-terminus, compared to isoform 1. Isoform 3 is exclusively expressed in fetal brain and may undergo N-terminal proteolytic processing following its insertion into the plasma membrane.