

Product datasheet for **RG228998**

NRG3 (NM_001165972) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NRG3 (NM_001165972) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NRG3
Synonyms:	HRG3; pro-NRG3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG228998 representing NM_001165972
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGTGAAGGGGCGCCGCTGCCTCGCCACCTGGTGCCGCTTCGGCAGCCGCCCTCGGCCGAGGAGG
 GCACCGCGCGGCTGCGGCGGGCAGCGCGGGCGGGGCCCGACGGCGGCGGAAGGGGCGGCCGA
 GCCCCCCCGGAGTTACGCTGTAGCGACTGCATCGTGTGGAACCGGCAGCAGACGTGGCTGTGCGTGGTA
 CCTCTGTTTCATCGGCTTCATCGGCTGGGGCTCAGCCTCATGTTCTCAAATGGATCGTGGTGGGCTCCG
 TCAAGGAGTACGTGCCACCGACCTAGTGGACTCCAAGGGGATGGGCCAGGACCCCTTCTCCTCTCCAA
 GCCAGCTCTTTCCCAAGGCCATGGAGACCACCACCCTACCCTTCCACCACGTCCCCGCCACCCCC
 TCCGCCGGGGTCCGCCTCCTCCAGGACGCCAACCAGGATTAGCACTCGCTGACCACCATCACGGGG
 CGCCCACTCGCTCCCCGGGCACCGGGTCCCATCCGGGCCAGCCCGCTCCACCACAGCACGGAACAC
 TCGGGCCCTGCGACGGTCCCGTCCACCACGGCCCGTTCTTTCAGTAGCAGCAGCTGGGCTCCGACCC
 CCGGTGCCAGGAATCCAAGTACCCAGGCAATGCCCTCCTGGCCTACTGCGGCATACGCTACCTCCTCCT
 ACCTTCACGATTCTACTCCCTCCTGGACCTGTCTCCCTTTCAGGATGCTGCCTCCTCTTCTCCTCTTC
 TTCTCCTCCGCTACCACCACACAGAAACTAGCACCAGCCCAAATTTTCATACGACGACATATTCC
 ACAGAGCGATCCGAGCACTTCAAACCTGCCGAGACAAGGACCTTGCACTACTGTCTCAATGATGGCGAGT
 GCTTTGTGATCGAAACCTGACCGGATCCCATAAACACTGTCGGTGCAAAGAAGGCTACCAAGGAGTCCG
 TTGTGATCAATTTCTGCCGAAACTGATTCCATCTTATCGGATCCAAACCACTTGGGGATTGAATTCATG
 GAGAGTGAAGAAGTTTATCAAAGGCAGGTGCTGTCAATTCATGTATCATCTTTGGAATTGTCATCGTGG
 GCATGTTCTGTGCAGCATTCTACTTCAAAGCAAGAAACAAGCTAAACAAATCCAAGAGCAGCTGAAAGT
 GCCACAAAATGGTAAAAGCTACAGTCTCAAAGCATCCAGCACAATGGCAAAGTCAGAGAATTTGGTGAAG
 AGCCATGTCCAGCTGAAAATTATTCAAAGGTGAAAAGGCATCCTGTGACTGCATTGGAGAAAATGATGG
 AGTCAAGTTTTGTGCGCCCCAGTCATTCCCTGAGGTCCCTTCTCCTGACAGAGGAAGCCAGTCTGTCAA
 ACACCACAGGAGTCTATCCTCTTGCTGCAGCCAGGGCAAAGAAGTGGCATGCTCCATAGGAATGCCTTC
 AGAAGGACACCCCGTCACCCCGAAGTAGGCTAGGTGGAATTGTGGGACCAGCATATCAGCAACTCGAAG
 AATCAAGGATCCAGACCAGGATACGATACCTTGCCAAGGGTATTCATCCAGTGGTTTAAAAACCAACG
 AAATACATCAATAAATATGCAACTGCCTTCAAGAGAGACAACCCTATTTTAATAGCTTGAGCAAAG
 GACCTGGTGGGCTATTTCATCCACAAGGGCCAGTCTGTGCCCATCATCCCTTCAGTGGGTTTAGAGGAAA
 CCTGCCTGCAAAATGCCAGGGATTTCTGAAGTCAAAGCATCAAATGGTGCAAAAACCTCCTATTCAGCTGA
 CGTTGTCAATGTGAGTATTCCAGTCAGCGATTGTCTTATAGCAGAACAACAAGAAGTGAATAATTGCTA
 GAAACTGTCCAGGAGCAGATCCGAATTCGACTGATGCCAGACGGTCAGAAGACTACGAAGTGGCCAGCG
 TAGAAACCGAGGACAGTGAAGCGAAAACACAGCCTTTCTCCCCCTGAGTCCCACAGCAAAATCAGAACG
 AGAGGCGCAATTTGTCTTAAGAAATGAAATACAAAGAGACTCTGCATTGACCAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG228998 representing NM_001165972
 Red=Cloning site Green=Tags(s)

MSEGAAAASPPGAASAAAASAEEGTAAAAAAAAGGGPDGGGEGAAEPPRELRCSDCIVWNRQQTWLCVV
 PLFIGFIGLGLSLMLLKIIVVGSVKEYVPTDLVDSKGMGQDPFFLSKPSSFPKAMETTTTTSTTSPATP
 SAGGAASSRTPNRISTRLLTITRAPTRFPGHRVPIRASPRSTTARNTAAPATVPSTTAPFFSSSTLGSRP
 PVPGTPSTQAMPSPWPTAAYATSSYLHDSTPSWTLSPFQDAASSSSSSSSSATTTPETSTSPKFHTTYS
 TERSEHFKPCRDKLAYCLNDGECFVIETLTGSHKHCRCKEGYQGVRCDFLPKTDSILSDPNHLGIEFM
 ESEEVYQRQVLSISCIIFGIVIVGMFCAAFYFKSKKQAKQIQEQLKVPQNGKSYSLKASSTMAKSENLVK
 SHVQLQNYSKVERHPVTALEKMMESSFVGPQSFPEVPSDRGSQSVKHHRSLSSCCSPGQRSGMLHRNAF
 RRTPPSPRSRLGGIVGPAYQQLEESRIPDQDTIPCQGYSSSLGKTQRNTSINMQLPSRETNPYFNSLEQK
 DLVGYSSSTRASSVPIIPSVGLEETCLQMPGISEVKSIIKWKNSYSADVNVVSIIPVSDCLIAEQQEVKILL
 ETVQEQIRILTDARRSEYELASVETEDSASENTAFLPLSPTAKSERAQFVLRNEIQRDSALTK

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001165972

ORF Size: 2085 bp

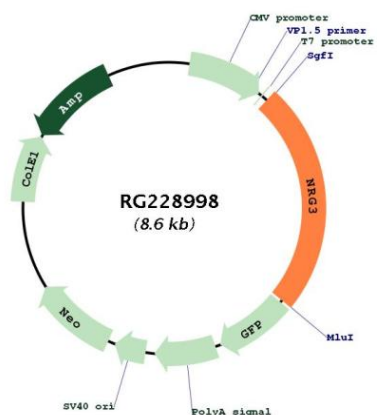
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_001165972.1, NP_001159444.1</u>
RefSeq Size:	3689 bp
RefSeq ORF:	2088 bp
Locus ID:	10718
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>

Product images:



Circular map for RG228998