

Product datasheet for **RC228414**

NRG3 (NM_001165973) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NRG3 (NM_001165973) Human Tagged ORF Clone
Tag:	Myc-DDK
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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ORF Nucleotide Sequence:

>RC228414 representing NM_001165973
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGTGTGGTATACCTCCAACCTTGTATGCGTTGGGAGAGGAGGGGACTACACACGATCAATATAA
 TCATCTGGTATTATTTCTTCTGCCTGGAGACTTGCTTTAACATTTCAAGTAGTGTGGTCTGCTGCT
 GACGAATTCATACAAATTTTATACGACGACATATTCCACAGAGCGATCCGAGCACTTCAAACCTGCCGA
 GACAAGGACCTTGCATACTGTCTCAATGATGGCGAGTGTCTTGTGATCGAAACCTGACCGGATCCATA
 AACACTGTCGGTGCAAAGAAGGCTACCAAGGAGTCCGTTGTGATCAATTTCTGCCGAAACTGATTCCAT
 CTTATCGGATCCAACAGACCACTTGGGGATTGAATTCATGGAGAGTGAAGAAGTTTATCAAAGGCAGGTG
 CTGTCAATTTTATGATCATCTTTGGAATTGTCATCGTGGGCATGTTCTGTGCAGCATTCTACTTCAAAA
 GCAAGAAACAAGCTAAACAAATCCAAGAGCAGCTGAAAGTGCCACAAAATGGTAAAAGCTACAGTCTCAA
 AGCATCCAGCACAAATGGCAAAGTCAAGAACTTGGTGAAGAGCCATGTCCAGCTGCAAAAATTATTCAAAG
 GTGGAAAGGCATCCTGTGACTGCATTGGAGAAAATGATGGAGTCAAGTTTTGTGCGCCCCAGTCATTCC
 CTGAGGTCCTTCTCCTGACAGAGGAAGCCAGTCTGTCAAACACCACAGGAGTCTATCCTCTTGCTGCAG
 CCCAGGGCAAAGAAGTGGCATGCTCCATAGGAATGCCTTCAGAAGGACACCCCCGTACCCCCAAGTAGG
 CTAGGTGGAATTGTGGGACCAGCATATCAGCAACTCGAAGAATCAAGGATCCCAGACCAGGATACGATAC
 CTTGCCAAGGGATAGAGGTGAGGAAAGACTATATCCACCTGCCTATACAGCTGTGGTGTGTTGAAAGACC
 CCTGGACTTAAAGTATTCATCCAGTGGTTTAAAAACCAACGAAATACATCAATAAATATGCAACTGCCT
 TCAAGAGAGACAAACCCCTATTTAATAGCTTGGAGCAAAGGACCTGGTGGGCTATTATCCACAAGGG
 CCAGTTCTGTGCCATCATCCCTTCAGTGGGTTTAGAGGAAACCTGCCTGCAAATGCCAGGATTTCTGA
 AGTCAAAGCATCAAATGGTGCAAAAACCTCTATTAGCTGACGTTGTCAATGTGAGTATCCAGTCAGC
 GATTGTCTTATAGCAGAACAACAAGAAGTGAATAATTGTAGAAACTGTCCAGGAGCAGATCCGAATTC
 TGACTGATGCCAGACGGTCAGAAGACTACGAACTGGCCAGCGTAGAAACCGAGGACAGTGAAGCGAAAA
 CACAGCCTTTCTCCCCTGAGTCCACAGCCAAATCAGAACGAGAGGCGCAATTTGTCTTAAAGAAATGAA
 ATACAAAGAGACTCTGCATTGACCAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC228414 representing NM_001165973
 Red=Cloning site Green=Tags(s)

MECGIPPTLVCVGRGGGLHTINIIWYFSPAWRTECFNIISSSVGLLLTNSYKFYTTTYSTERSEHFKPCR
 DKDLAYCLNDGECFVIETLTGSHKHCRCKEGYQGVRCDFLPKTDLSILSDPTDHLGIEFMESEEVYQRQV
 LSISCIIFGIVIVGMFAAFYFKSKQAKQIQEQLKVPQNGKSYSLKASSTMAKSENLVKSHVQLQNYSK
 VERHPVTALEKMMESSFVGPQSFPEVPSDRGSQSVKHHRSLSSCCSPGQRSGMLHRNAFRRTPPSPRSR
 LGGIVGPAYQQLLEESRIPDQDTIPCQGIIEVRKTI SHLPIQLWCVERPLDLKYSSSLKTRNTSINMQLP
 SRETNPFNSLEQKDLVGSSTRASSVPIIPSVGLEETCLQMPGISEVKS IKWKCKNSYSADVNVNIPVPS
 DCLIAEQEVKILLETVQEIRILTDARRSEYELASVETEDSASENTAFLPLSPTAKSERAQFVLRNE
 IQRDSALTK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1410_b01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001165973

ORF Size: 1497 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:

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](#), [NP_001159445.1](#)

RefSeq ORF: 1500 bp

Locus ID: 10718

UniProt ID: [P56975](#)

Cytogenetics: 10q23.1

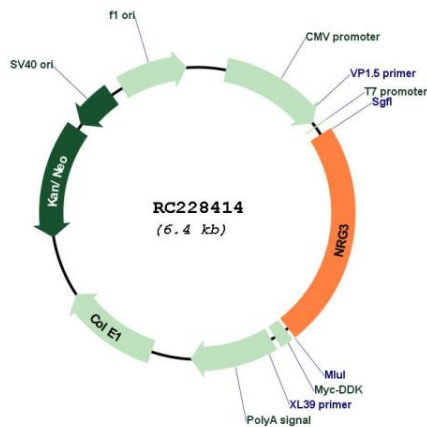
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: ErbB signaling pathway

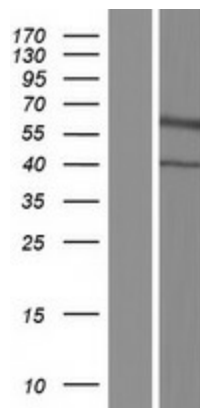
MW: 55.9 kDa

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]

Product images:



Circular map for RC228414



Western blot validation of overexpression lysate (Cat# [LY431442]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228414 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).