

Product datasheet for **RG209646**

ZCCHC3 (NM_033089) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	ZCCHC3
Synonyms:	C20orf99
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG209646 representing NM_033089
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGGCCACCGCGCGCGCGGAGGAAGAGAGGAAACGGGGCGGCCGAGCTTCTGCCCCCGCGCGGC
CCGCGGCCCGGGCGAGGAGGCCGACGGCGGCCGCGAGAAGATGGGCTGGGCCAGGTGGTGAAGAATCT
AGCCGAGAAGAAGGGCGAATTCGCGAGCCGCGGCCCGCGCGGGAGGAGGAAGCGCGCGGTGGA
GGGAGCGCGGGCTCGGCGGCCCGCGGGCCTGGCGCGCGGACCTCGCGACTTCCCACCGCTGGCC
GCGGGGACCCGAAGGGCCGTCGGAGAGATCCGGCCGGCGAGGCGGTGGACCCCGCAAAAAGAAGGGCGC
TGCGGAGGCGGGCAGGAGGAAGAAGCCGAGGCGCGCGGCCCATGGCGACCCCGGCCAGGCCCGGC
GAGGCCGAGGACGCGGCCGAGCGGCCCTCCAGGATGAGCCGGCGCGCGGCAGGCCCGGGCAAGGGTC
GCTTCTCTCGTCGCATCTGTTTCCAGGGAGACGAGGGCGCTGCCGACCCGGGACTTCGTGGTAGGAGC
GCTTATCCTGCGCTCCATCGGCATGGACCCGAGCGACATCTACGCGGTATCCAGATCCCGGGCAGCCGC
GAATTCGACGTGAGCTTCCGCTCAGCGGAGAAGCTGGCCCTGTTCTACGCGTCTACGAGGAGAAGCGGG
AGCAGGAGGACTGCTGGGAGAACTTGTGGTGTGGGCGGAGCAAGTCCAGCTTGAAGACGCTCTTCAT
CCTCTTCCGAACGAGACGGTGGAGTGGAGGACATTGTGACTTGGCTCAAGCGCCACTGCGACGTGCTG
GCCGTGCCGTTGAAAGTGACCGACAGGTTTGGGATCTGGACCGGGGAGTACAAATGCGAGATCGAGCTGC
GCCAGGGGAGGGCGGGTCAGGCATTGCCAGGGGCTTCTTCTGGGGGCCGAGAGGGGTACAGCTG
GTACAAGGGGAGCCCAAGACATGCTTTAAATGTGGTTCGCGACCCACATGAGCGGCAGCTGCACGCGAG
GACAGGTGCTTCAAGTGCAGGGAGGAGGGGACCTGAGCCCTTACTGCCGAAGGGCATCGTGTGAACC
TCTGTGGCAAGCGAGGACAGCCTTTGCCAGTGTCCAAAGCAGTGCACAATTCGTGGCAGCTCAGCT
AACCGCGTGGCCGGGCAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



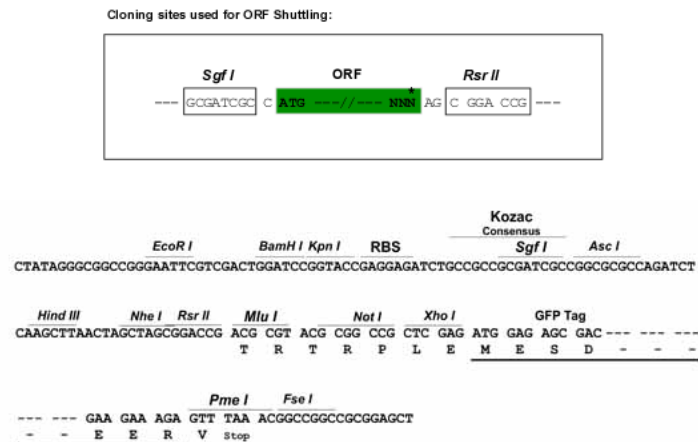
Protein Sequence: >RG209646 representing NM_033089
Red=Cloning site Green=Tags(s)

MATGGGAEEERKRGRPQLPPARPAARGEEDGGREKMGWAQVVKNLAEKKGEFREPRPPRREESGGGG
GSAGLGPPAGLAAPDLGDFPPAGRGDPKGRRRDPAGEAVDPRKKKGAAEAGRRKKAEEAAAAMATPARPG
EAEDAAERPLQDEPAAAAGPGKGRFLVRICFQGDEGACPTRDFVVGALILRSIGMDPSDIYAVIQIPGSR
EFDVSFRSAEKLALFLRVYEEKREQEDCWENFVVLGRSKSSLKTLFILFRNETVDVEDIVTLKRHCDVL
AVPVKVTDRFGIWTGEYKCEIELRQEGGVRLHPGAFFLGAERGYSWYKGQPKTCFKCGSRTHMSGCTQ
DRCFRCGEEGHLSPYCRKGIVCNLCGKRGHAFACQCPKAVHNSVAAQLTGVAGH

SGPTRRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_033089

ORF Size: 1209 bp

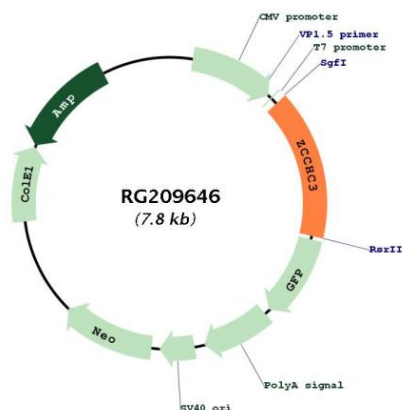
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_033089.6, NP_149080.2</u>
RefSeq Size:	2773 bp
RefSeq ORF:	1212 bp
Locus ID:	85364
UniProt ID:	<u>Q9NUD5</u>
Cytogenetics:	20p13
Domains:	zf-CCHC
Gene Summary:	Nucleic acid-binding protein involved in innate immune response to DNA and RNA viruses (PubMed:30193849, PubMed:30135424). Binds DNA and RNA in the cytoplasm and acts by promoting recognition of viral nucleic acids by virus sensors, such as DDX58/RIG-I, IFIH1/MDA5 and CGAS (PubMed:30193849, PubMed:30135424). Acts as a co-sensor for recognition of double-stranded DNA (dsDNA) by cGAS in the cytoplasm, thereby playing a role in innate immune response to cytosolic dsDNA and DNA virus (PubMed:30135424). Binds dsDNA and probably acts by promoting sensing of dsDNA by CGAS, leading to enhance CGAS oligomerization and activation (PubMed:30135424). Promotes sensing of viral RNA by RIG-I-like receptors proteins DDX58/RIG-I and IFIH1/MDA5 via two mechanisms: binds double-stranded RNA (dsRNA), enhancing the binding of DDX58/RIG-I and IFIH1/MDA5 to dsRNA and promotes 'Lys-63'-linked ubiquitination and subsequent activation of DDX58/RIG-I and IFIH1/MDA5 (PubMed:30193849).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG209646