

## Product datasheet for RC209646

### ZCCHC3 (NM\_033089) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ZCCHC3 (NM_033089) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ZCCHC3
Synonyms:	C20orf99
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209646 representing NM_033089 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGCCACCGCGCGCGCGGAGGAAGAGAGGAAACGGGGCGGCCGAGCTTCTGCCCCCGCGCGGC  
CCGCGGCCGGGGCGAGGAGGCCGACGGCGGCCGAGAAAGATGGGCTGGGCCAGGTGGTGAAGAATCT  
AGCCGAGAAGAAGGGCGAATTCGCGAGCCGCGGCCGCGCGGGAGGAGGAAAGCGCGCGGTGGA  
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TGCAGGAGCGGGCAGGAGGAAGAAGGCCGAGGCGCGGCCGCGCATGGCGACCCCGGCCAGGCCCGGC  
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GCTTCTCGTCCGCATCTGTTTCCAGGGAGACGAGGGCGCCTGCCCGACCCGGGACTTCTGGTAGGAGC  
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CCTTTCCGGAACGAGACGGTGGACGTGGAGGACATTGTGACTTGGCTCAAGCGCCACTGCGACGTGCTG  
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GCCAGGGGAGGGCGGGTCAAGCACTTCCAGGGCCTTCTTCTGGGGCCGAGAGGGGCTACAGCTG  
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GACAGGTGCTTCAAGTGCGGGAGGAGGGCACCTGAGCCCTTACTGCCGGAAGGCATCGTGTCAACC  
TCTGTGGCAAGCGAGGACACGCCTTTGCCAGTGTCCAAAGCAGTGACAATCCGTGGCAGCTCAGCT  
AACCGCGTGGCCGGGCAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC209646 representing NM\_033089  
Red=Cloning site Green=Tags(s)

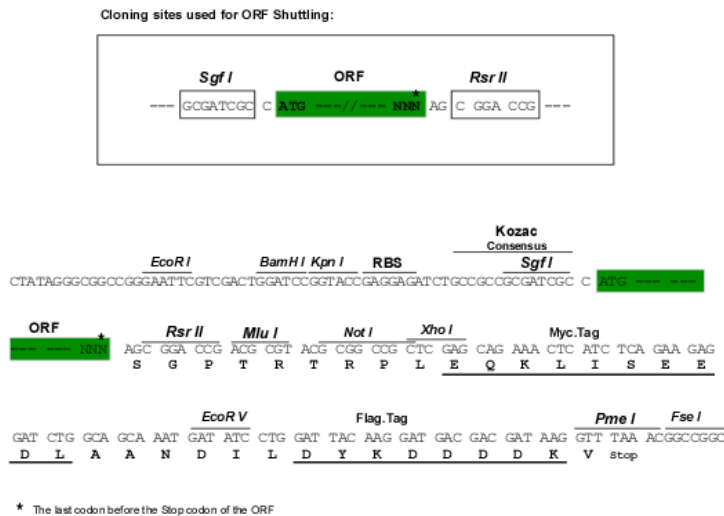
MATGGGAEERKRGRPQLLPPARPAARGEEADGGREKMGWAQVVKNLAEKKGEFREPRPPRREESGGGG  
 GSAGLGGPAGLAAPDLGDFPPAGRGDPKRRRDPAGEAVDPRKKKGAAEAGRKKAEAAAAAMATPARPG  
 EAEDAAERPLQDEPAAAAGPGKGRFLVRI CFQGDGACPTRDFVVGALILRSIGMDPSDIYAVIQIPGSR  
 EFDVSRSAEKLALFLRVYEEKREQEDCWENFVVLGRSKSSLKTLFILFRNETVDVEDIVTLKRHCDVL  
 AVPVKVTDRFGIWTGEYKCEIELRQEGGVRLHPGAFFLGAERGSWYKGPQKTCFKCGSRTHMSGCTQ  
 DRCFRCGEEGHLSPYCRKGIVCNLCKGRGHAFACPKAVHNSVAAQLTGVAGH

SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8114\\_b03.zip](https://cdn.origene.com/chromatograms/mk8114_b03.zip)

**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.

**RefSeq:** [NM\\_033089.7](#)

**RefSeq Size:** 2773 bp

**RefSeq ORF:** 1212 bp

**Locus ID:** 85364

**UniProt ID:** [Q9NUD5](#)

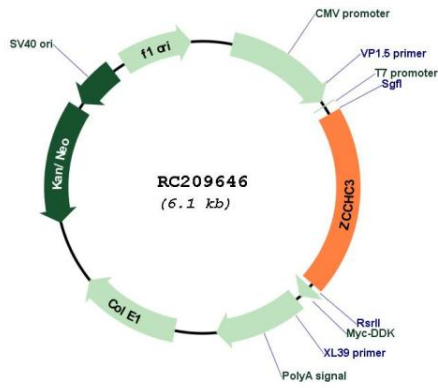
**Cytogenetics:** 20p13

**Domains:** zf-CCHC

**MW:** 43.4 kDa

**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 RC209646