

## Product datasheet for **SC101625**

### ZCCHC3 (NM\_033089) Human Untagged Clone

#### Product data:

|                           |                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                                               |
| Product Name:             | ZCCHC3 (NM_033089) Human Untagged Clone                                                           |
| Tag:                      | Tag Free                                                                                          |
| Symbol:                   | ZCCHC3                                                                                            |
| Synonyms:                 | C20orf99                                                                                          |
| Mammalian Cell Selection: | None                                                                                              |
| Vector:                   | <u>pCMV6-XL5</u>                                                                                  |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                                                            |
| Fully Sequenced ORF:      | >NCBI ORF sequence for NM_033089, the custom clone sequence may differ by one or more nucleotides |

ATGGCCACCGGCGGCGGCGGAGGAAGAGAGGAAACGGGGCGGCCGACGCTTCTGCCCCCGCGCGGC  
CCGCGGCCCGGGGCGAGGAGGCCGACGGCGGCCGCGAGAAGATGGGCTGGGCCAGGTGGTGAAGAATCT  
AGCCGAGAAGAAGGGCGAATTCGCGAGCCGCGGCCGCGCGGGAGGAGGAAAGCGGCGGGTGA  
GGGAGCGCCGGGCTCGGCGGCCCGCGGGCCTGGCGGCGCGGACCTCGGCGACTTCCACCGGCTGGCC  
GCGGGGATCCGAAGGGCCGTCGGAGAGATCCGGCCGGCGAGGCGGTGACCCCCGAAAAAGAAGGGCGC  
TGGGAGGCGGGCAGGAGGAAGAAGGCCGAGGCGGCGGCGGCCATGGCGACCCCGGCCAGGCCCGGC  
GAGGCCGAGGACGCGGCCGAGCGCCCCCTCCAGGATGAGCCGGCGGCGGCGGCGAGCCCGGGCAAGGGTC  
GCTTCCTCGTCCGCATCTGTTTCCAGGGAGACGAGGGCGCCTGCCCGACCCGGGACTTCGTGGTAGGAGC  
GCTTATCCTGCGCTCCATCGGCATGGACCCGAGCGACATCTACGCGGTCTCCAGATCCCGGGCAGCCGC  
GAATTCGACGTGAGCTTCCGCTCAGCGGAGAAGCTGGCCCTGTTCTACGCGTCTACGAGGAGAAGCGGG  
AGCAGGAGGACTGCTGGGAGAACTTTGTGGTGCTGGGGCGGAGCAAGTCCAGCTTGAAGACGCTCTTCAT  
CCTCTTCCGGAACGAGACGCTGGACGTGGAGGACATTGTGACTTGGCTCAAGCGCCACTGCGACGTGCTG  
GCCGTGCCGTGAAAGTGACCGACAGGTTTGGGATCTGGACCGGGGAGTACAAATGCGAGATCGAGCTGC  
GCCAGGGGAGGGCGGGTCAAGGACATGCTTTAAATGTGGTTCCCGACCCACATGAGCGCGAGCTGCACGCAG  
GACAGGTGCTTCAGGTGCGGGGAGGAGGGGACCTGAGCCCTTACTGCCGGAAGGGCATCGTGTGAACC  
TCTGTGGCAAGCGAGGACACGCCTTTGCCAGTGTCCCAAGCAGTGCACAATTCCGTGGCAGCTCAGCT  
AACCGCGTGGCCGGGCACTAA



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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_033089 unedited  
TATACGACTCACTATAGGCGGCCCGCAATTTCGCACGAGAAAAGAGGTAAATGGCCACC  
GGCGGGCGCGCGGAGGAAGAGAGGAAACGGGGCGGCCGAGCTTCTGCCCCCGCGCGG  
CCCGCGGCGCGGGGCGAGGAGGCCGACGGCGGCCGCGAGAAGATGGGCTGGGCCAGGTG  
GTGAAGAATCTAGCCGAGAAGAAGGGCGAATTCGCGAGCCGCGGCCCGCGCGGGAG  
GAGGAAAGCGGCGGCGGTGGAGGGAGCGCCGGGCTCGCGGCCCGCGGGCCTGGCGGCG  
CCGGACCTCGGCGACTTCCACCGGCTGGCCGCGGGGACCGAAGGGCCGTCGGAGAGAT  
CCGGCCGCGAGGCGGTGGACCCCGCAAAAAGAAGGGCGCTGCGGAGGCGGGCAGGAGG  
AAGAAGGCCGAGGCGGCGGCGGCCCATGGCGACCCGCGCCAGGCCGCGAGGCCGAG  
GACGCGGCCGAGCGGCCCTCCAGGATGAGCGCGCGGCGGCGCAGGCCGCGGAAGGT  
CGCTTCTCGTCCGATCTGTTCCAGGGAGACGAGGGCGCTGCCGACCCGGGACTTC  
GTGGTAGGAGCGCTTATCTGCGCTCCATCGGCATGGACCCGAGCGACATCTACGCGGTC  
ATCCAGATCCCGGGCAGCCGCAATTCGACGTGAGCTTCCGCTCAGCGGAGAAGCTGGCC  
CTGTTCTACGCTCTACGAGGAGAAGCGGGAGCAGGAGGACTGCTGGGAGAACTTTGTG  
GTGCTGGGGCGGAGCAAGTCCAGCTTGNAGACGCTCTTCATCTTNCGAACGANGACG  
TGGACGTGNAGGACATTGTGACTTGGCTCAAGCGCACTGCGACGTGCTGGGCCGTGCCGT  
GAAAGTGACCGACAGTTTGGGATCTGGACCCGGGGTCAAATGCAAATCACCTGCGCAG  
GGGAGGGCCGGGTGAGCACTGCCAGGGCCT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_033089 unedited  
TAGTACCGCGCCGCTATCTANGATCGAGTTTTTTTTTTTTTTTTTTTGGCAATACAAAAGA  
TAAATATTTATTAGAACAAAATTTTAAACATCAATTTTACATTCTAAGCCACAAGGAA  
ATAGCAAAACATATAGCAAAAGGAAAAGCAAACTAAAAGAAAAGCAGTGTACTGTCTTT  
TCTACTGGATAACACTTAGTTGGCCATGACCTCTCGCTTGGCCTATCTCCCAAGTACAT  
TTTAGAGTTAACAGCTCACTCATAATTTTGGGTAAAAATCCATCTTTCTCCTGAGATCA  
GGAGTTGCACATGAGCTCCAGCTAGCTGCTTCTAGGGTTCTGAGCTATTGAGGCTAAG  
GTGCAATGTAAACCTTTGGTAGGTTTCTTTACACAGGGGACCCCCATTTCTACTGGT  
GGCAATGAATGGGAAGGGGTAGGGCTCCAAAGGACCTGGCACACTGTAATCCAGAAGT  
GGTGCCCCAGGGAGCAACGAATGACCCCTGGAGTGTGGTCCTTGGTCCGTTCGATCTC  
CCAAGTATTCAGAAGCCCTCTTAAAAACCTTCTCTTTCTGCTCCCTCCTCCAGGTGAT  
TTCTCAGCATTCCTCTGGGCTGATCAATTCTGGAGAGATCAGACTTTCTGGGCCCTCAA  
GTGTGAAGAAATTGNTGTGAATTGTGAGAAGTANTGGAATGAGCACCCGGGCTGGNNGTC  
AGGGACTCTACTATAGGCTGGCTCTGGCACCGACAGCTATGTGATTTTACCCGTCCTATT  
TACCTCTTTTGGCCGTTTCATCTGCTGGGAAAACAGGGAATGGTCCAAAACAACCTCTC  
AAGTCCTTTCCAGCAGAAAAATCTAAATCCAGGAATCATTAAAAATGGGTTCTGGACCAC  
CAAAAACTGGCTGAAGTCCAGCTTCTTGTCATAGAAAGCCCTGGCCCCATTAGAAT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_033089

**Insert Size:**

2380 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).

**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\\_033089.6](#), [NP\\_149080.2](#)

**RefSeq Size:** 2773 bp

**RefSeq ORF:** 1212 bp

**Locus ID:** 85364

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

**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]