

## Product datasheet for **RC238452**

### **ZWILCH (NM\_001287821) Human Tagged ORF Clone**

#### **Product data:**

|                           |                                              |
|---------------------------|----------------------------------------------|
| Product Type:             | Expression Plasmids                          |
| Product Name:             | ZWILCH (NM_001287821) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                      |
| Symbol:                   | ZWILCH                                       |
| Synonyms:                 | hZwilch; KNTC1AP                             |
| Mammalian Cell Selection: | Neomycin                                     |
| Vector:                   | pCMV6-Entry (PS100001)                       |
| E. coli Selection:        | Kanamycin (25 ug/mL)                         |



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**ORF Nucleotide Sequence:**

>RC238452 representing NM\_001287821  
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGAATTCTGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGC  
 GCCC

ATGGCTCACAATCCTAATATGACCCATTTGAAGATTAATCTGCCAGTTACTGCCCTTCTCCCTTTGGG  
 TAAGATGTGACAGTTCAGATCCTGAAGGTACTTGTGGCTAGGAGCTGAGCTTATCACAACAAACACAG  
 CATTACAGGAATTGTCTTATATGTGGTCAGTTGTAAAGCTGATAAAATATTCTGTAAATCTTGAAAC  
 CTAATAATTTACACAAGAAAAGACATCACTTGTCTACTGTAACTCCAAAGGCTTTGCCAGTATGAGC  
 TCTTTAAGTCTCTGCCTTGGATGATACAATCACAGCATCACAACCTGCGATCGCTTTGGATATTTCTG  
 GAGTCTGTGGATGAGATTCTTCAAATCCCTCCACTCTCTTCACTGCAACTCTGAATATTAAGTGGA  
 TCAGGAGAGCCCAGAGGTCTTTGAATCATCTCTACAGAGAACTGAAATTTCTTCTGTTTGGCTGATG  
 GTTTGAGGACTGGTGTCACTGAATGGCTCGAGCCCTGGAAGCAAATCTGCTGTTGAATTGTTGAGGA  
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 TTGAAGCATGACACTGCTGCAGTCGATCGTTCCGTCAAGCGTCTTTCAAAGTTCGGAGTGATCTTGATT  
 TTGCTGAGCAACTGTGGTGCAAATGAGCAGTAGTGTGATTTCATACCAAGACTTGGTGAAGTGTTCAC  
 ATTGATCATCCAGAGTCTACAACGTGGTGATATACAGCCATGGCTCCATAGTGGAAGTAACGTTTACTA  
 AGTAAGCTCATTATCAGTCTTATCATGGAACCATGGACACAGTTTCTCTCAGTGGGACTATTCCAGTTC  
 AAATGCTTTTGGAAATTGGTTTGGACAACTAAAGAAAGATTATCAGTTTTTTCATAGGTCAGGAACT  
 TGCATCTTTGAATCATTGGAATACTTCATTGCTCCATCAGTAGATATACAAGAACAGGTTTATCGTGTC  
 CAAAACTCCACCATTCTAGAAATATTAGTCAGTTGCATGCCTTTCATTAAATCTCAACATGAACCTCC  
 TCTTTTCTTTAACACAGATCTGCATAAAGTATTACAAACAAATCCTCTTGATGAGCAACACATTTTCA  
 GCTGCCAGTCAGACCAACTGCTGTAAAGAAGTTATATCAAAGTGAGAAGCCACAGAAATGGAGAGTGGA  
 ATATATAGTGGTCAAAGAAGATTAAGACAGTTTGGCAACTGAGTGACAGCTACCCATAGACCATCTGA  
 ATTTTCACAACTGATTTTTCGGAATTAACACTAAACGGTAGCCTGGAAGAAAGGATATTCTTTACTAA  
 CATGGTTACCTGCAGCCAGGTGCATTTCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC238452 representing NM\_001287821  
 Red=Cloning site Green=Tags(s)

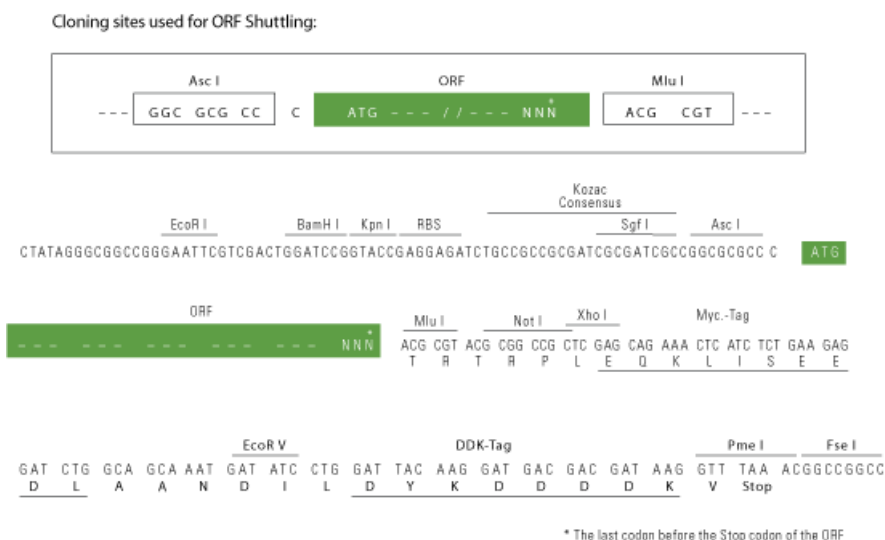
MAHNPNMTHLKINLPVTALPPLWVRCDSSDPEGTCWLGAELITTNNISITGIVLYVVSCKADKNYSVNLEN  
 LKNLHKRRHHLSTVTSKGFAQYELFKSSALDDITASQTAIALDISWSPVDEILQIPPLSSTATLNIKVE  
 SGEPRGPLNHL YRELKFLVLADGLRTGVTEWLEPLEAKSAVELVQEFLNDLNKLDGFGDSTKKDTEVET  
 LKHDTAAVDRSVKRLFKVRSDLDFAEQLWCKMSSSVISYQDLVKCFLLIIQSLQRGDIQPWLHSGSNSLL  
 SKLIHQSYHGTMDTVSLSGTIPVQMLLEIGLDKLLKDYISFFIGQELASLNHLEYFIAPSVDIQEQVYRV  
 QKLHHILEILVSCMPFIKSQHELLFSLTQICIKYKQNPLDEQHIFQLPVRPTAVKNLYQSEKPKQWRVE  
 IYSGQKKIKTVWQLSDSSPIDHLNFHKPDFSELTLNGSLEERIFFTNMVTCSQVHFK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Ascl-MluI

### Cloning Scheme:



ACCN: NM 001287821

ORF Size: 1431 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: [NM\\_001287821.2](#)

RefSeq Size: 3299 bp

RefSeq ORF: 1434 bp

Locus ID: 55055

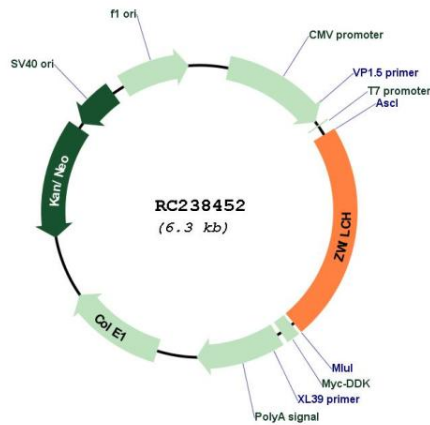
UniProt ID: Q9H900

Cytogenetics: 15q22.31

MW: 54.7 kDa

**Gene Summary:** Essential component of the mitotic checkpoint, which prevents cells from prematurely exiting mitosis. Required for the assembly of the dynein-dynactin and MAD1-MAD2 complexes onto kinetochores. Its function related to the spindle assembly machinery is proposed to depend on its association in the mitotic RZZ complex (PubMed:15824131).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RC238452