

## Product datasheet for RC222577

### ODAD2 (NM\_018076) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ODAD2 (NM_018076) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ODAD2
Synonyms:	ARMC4; CILD23; gudu
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222577 representing NM_018076 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGTGTGGCTCTGAGGAAATTGACGCAGTGGACTGCTGCCGGACATGGAAGTGGAAATCCTCGAAATCA  
CCCCTCTAAATGAAGCGATATTGAAAGAAATTATTGTGTTTGGAGAGTTTTATCTATAAACATCCTCA  
AGAGGCCAAATTTGTTTTGTGGAACCACTTGAATGGAACACAAGTTGGCGCCCTCAGCATTTGAATCA  
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GAAGTTGAAGGAAGCCCAAGCATGTGTTGAAGCTAACAGAGACCCCATAGTAAAAATCCTGGGCTCTGAT  
TATAATACAATGAAAGAAAACCAATTGCATTAATATTCCTGGCAAAATACCAGAGATGATGATCCTG  
AAAGTGAATTAAGATGAAGATTGCTATGCTGCTTAAGCAATTGGATCTGCACCTCCTCAATCATTCTCT  
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AGAGATGTTGGAGGCCTGGAAGTCTGATAAAATTTGCTTGAAACCGATGAAGTCAAATGTAAGATTGGT
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ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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**Protein Sequence:**

>RC222577 representing NM\_018076  
Red=Cloning site Green=Tags(s)

```

MGVALRKLQWTAAGHGTGILEITPLNEAILKEIIVFVESFIYKHPQEAQKVFVVEPLEWNTSLAPSAFES
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YNTMKENSIALNILGKITRDDDPESEIKMKIAMLLKQLDLHLLNHSLKHISLEISLSPMTVKKDIELLKR
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DVNYERKGSYKNLVTFLEKSPKFSENMSKLGISFSEDQKQEKDQLGKAPKKEEAAALRKDISGSDKRS
LEKNQINFWRNQMTKRWEPSLNWKTTVNYKKGSAKEIQEDKHTGKLEKPRPSVSHGRAQLLRKSAEKIE
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RDVGGLEVLINLLETDEVKCKIGSLKILKEISHNPQIRQNIVDLGGLPIMVNILDSPHKSLKCLAAETIA
NVAKFKRARRVVRQHGGITKLVALLDCAHDSTKPAQSSLYEARDEVEARCGALALWCSKSHNKEAIRK
AGGIPLLARLLKTSHENMLIPVVGTLQECASEENYRAAIKAERIIENLVKNLSENEQLQEHCAMAIYQC
AEDKETRDLVRLHGGLKPLASLLNNTDNKERLAAVTGAIWKCSISKENVTKFREYKAIETLVGLLTDQPE
EVLVNVVVGALGECCQERENRIVRKCGGIQPLVNLVGINQALLVNVTKAVGACAVEPESSMMIIDRLDGV
RLLWSLLKNPHPDVKASAAWALCPCIKNAKDAGEMVRSFVGGLELIVNLLKSDNKEVLASVCAAITNIAK
DQENLAVITDHGVVPLL SKLANTNNKLRHHLAEAISRCMWRNRVAFGEHKAVAPLVRYLKSNDTNVH
RATAQALYQLSEDADNCITMHENGAVKLLLDVVGSPDQDLQEAAGCISNIRRLALATEKARYT

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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

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**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8100\\_d12.zip](https://cdn.origene.com/chromatograms/mk8100_d12.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_018076

**ORF Size:** 3132 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\\_018076.5](#)

**RefSeq Size:** 3572 bp

**RefSeq ORF:** 3135 bp

**Locus ID:** 55130

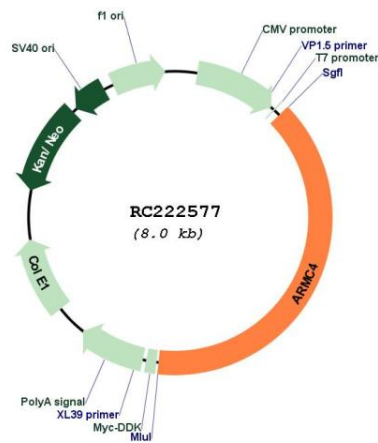
**UniProt ID:** [Q5T2S8](#)

**Cytogenetics:** 10p12.1

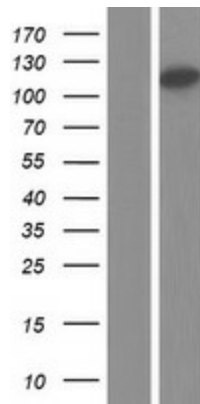
**MW:** 115.7 kDa

**Gene Summary:** The protein encoded by this gene contains ten Armadillo repeat motifs (ARMs) and one HEAT repeat, and is thought to be involved in ciliary and flagellar movement. This protein has been shown to localize to the ciliary axonemes and at the ciliary base of respiratory cells. Studies indicate that mutations in this gene cause partial outer dynein arm (ODA) defects in respiratory cilia. The cilia of cells with mutations in this gene displayed either reduced ciliary beat frequency and amplitude, or, complete immotility. Some individuals with primary ciliary dyskensia (PCD) have been shown to have mutations in this gene. PCD is characterized by chronic airway disease and left/right body asymmetry defects. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2015]

**Product images:**



Circular map for RC222577



Western blot validation of overexpression lysate (Cat# [LY413335]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222577 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).