

## Product datasheet for **RC228592**

### Argonaute 2 (AGO2) (NM\_001164623) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Argonaute 2 (AGO2) (NM_001164623) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Argonaute 2
Synonyms:	CASC7; EIF2C2; LESKRES; LINC00980; PPD; Q10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC228592 representing NM\_001164623  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTACTCGGAGCCGGCCCCGCACTTGCACCTCTGCGCGCCGCCCCCATCCAAGGATATGCCTTCA  
AGCCTCCACCTAGACCCGACTTTGGGACCTCCGGGAGAACAATCAAATTACAGGCCAATTTCTTCGAAAT  
GGACATCCCCAAAATTGACATCTATCATTATGAATTGGATATCAAGCCAGAGAAGTGCCCGAGGAGAGTT  
AACAGGGAAAATCGTGGAACACATGGTCCAGCACTTTAAAACACAGATCTTTGGGGATCGGAAGCCCGTGT  
TTGACGGCAGGAAGAATCTATACACAGCCATGCCCTTCCGATTGGGAGGGACAAGGTGGAGCTGGAGGT  
CACGCTGCCAGGAGAAGGCAAGGATCGCATCTTCAAGGTGTCCATCAAGTGGGTGTCTGCGTGAGCTTG  
CAGGCGTTACACGATGCACTTTACAGGGCGGCTGCCAGCGTCCCTTTTGAGACGATCCAGGCCCTGGACG  
TGGTCATGAGGCCTTGCATCCATGAGGTACACCCCGTGGGCCGCTCCTTCTCACCGCGTCCGAAGG  
CTGCTCTAACCCCTTTGGCGGGGCCGAGAAGTGTGGTTTGGCTTCCATCAGTCCGTCGGCCTTCTCTC  
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GTTTACCAAGAAATTAAGGTCTAAAGGTGGAGATAACGCACCTGTGGCAGATGAAGAGGAAGTACCGC  
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TTTACAAGTCGGACAGGAGCAGAAACACACCTACCTTCCCCTGGAGGTCTGTAACATTGTGGCAGGACAA  
ATCGGCAAGAAGAGATTAGCAAATTTGATGCGAAGTGCAAGTTTCAACACAGATCCATCGTCCGTTGAAT  
TGGAAATCATGGTCAAAGATGAGATGACAGACGTGACTGGGCGGGTGTGTCAGCCGCCCTCCATCCTCTAC  
GGGGGCAGGAATAAAGCTATTGCGACCCCTGTCCAGGGCGTCTGGGACATGCGGAACAAGCAGTTCACA  
CGGGCATCGAGATCAAGGTGTGGCCATTGCGTGCTTCGCCCCCAGCGCCAGTGACGGAAGTCCATCT  
GAAGTCTTCACAGAGCAGCTCAGAAAGATCTCGAGAGACCGCGCATGCCATCCAGGGCCAGCCGTGC  
TTCTGCAAATACGCGCAGGGGGCGGACAGCGTGGAGCCCATGTTCCGGCACCTGAAGAACACGTATGCGG  
GCCTGCAGCTGGTGGTGGTCATCTGCCCGCAAGACGCCCGTGTACGCCGAGGTCAAGCGCGTGGGAGA  
CACGGTGTGGGATGGCCACGCAGTGCCTGCAGATGAAGAACGTGCAGAGGACCAGCCACAGACCCTG  
TCCAACCTCTGCCTGAAGATCAACGTCAAGCTGGGAGGCGTGAACAACATCCTGTGCCCCAGGGCAGGC  
CGCCGGTGTCCAGCAGCCCGTCATCTTTCTGGGAGCAGACGTCCTCACCCCCCGCCGGGATGGGAA  
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GTGCAGCAGCACCAGGAGATCATACAAGACCTGGCCGCCATGGTCCGCGAGCTCCTCATCCAGTTCT  
ACAAGTCCACGCGCTTCAAGCCACCCGCATCATCTTCTACCGCGACGGTGTCTCTGAAGGCCAGTTCCA  
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CCTAACCTACCAGCTGTGTCACACCTACGTGCGCTGCACAGCTCCGTGCCATCCAGCGCCAGCATA  
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GCCATACCTCTGGGACAGATAACGGGCGAGACCACCAAGCACTGGCCAAGGCGGTCCAGGTTACCAAGA  
CACTCTGCGCACCATGTACTTTGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC228592 representing NM\_001164623  
Red=Cloning site Green=Tags(s)

MYSGAGPALAPPAPPPPIQGYAFKPPRPDFGTSGRITIKLQANFFEMDIPKIDIYHYELDIKPEKCPRRV  
NREIVEHMQHFQKTIQIFGDRKPVFDGRKNLYTAMPLPIGRDKVELEVTLPGEGKDRIFKVSIKWVSCVSL  
QALHDALSGRLPSVPFETIQALDVVMRHLPSMRYTPVGRSFFTASEGCSNPLGGGREVWFGFHQSVRPSL  
WKMLLNIDVSATAFYKAQPVIEFVCEVLDFKSIEEQKPLTDSQRVKFTKEIKGLKVEITHCGQMKRKYR  
VCNVTRRPASHQTFPLQQESGQTVECTVAQYFKDRHKLVLRYPHLPCLQVQEQKHTYLPLEVCNIVAGQ  
RCIKKLTDNQSTMIRATARSAPDRQEEISKLMRSASFNTDPYVREFGIMVKDEMTDVTGRVLQPPSILY  
GGRNKAIATPVQGVWDMRNKQFHTGIEIKVWAIACFAPQRQCTEVHLKSFTEQLRKISR DAGMPIQGGQPC  
FCKYAQGADSVPEPMFRHLKNTYAGLQLVVVILPGKTPVYAEVKRVGDTVLGMATQCVMKNVQRTTPQTL  
SNLCLKINVKLGGVNNILLPQGRPPVFQQPVIFLGADVTHPPAGDGKKPSIAAVVGSMDAHPNRYCATVR  
VQQHRQEI IQDLAAMVRELLIQFYKSTRFKPTRIIFYRDGVSEGGFQQVLHHELLAIREACIKLEKDYQP  
GITFIVVQKRHHTRLFCTDKNERGTSRPSHYHVLWDDNRFSSDELQILTYQLCHTYVRCRTRSVSIPAPAY  
YAHLVAFRARYHLVDKEHDSAEGSHTSGQSNGRDHQALAKAVQVHQDTLRTMYFA

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1637\\_e06.zip](https://cdn.origene.com/chromatograms/ja1637_e06.zip)

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001164623

**ORF Size:** 2475 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\\_001164623.3](#)

**RefSeq ORF:** 2478 bp

**Locus ID:** 27161

**UniProt ID:** [Q9UKV8](#)

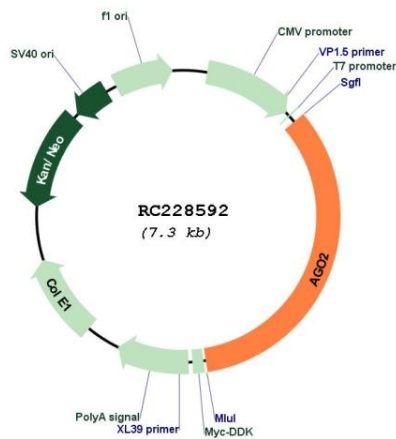
**Cytogenetics:** 8q24.3

**Protein Families:** Druggable Genome

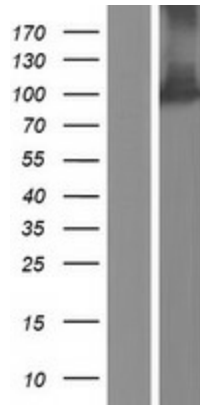
**MW:** 93.4 kDa

**Gene Summary:** This gene encodes a member of the Argonaute family of proteins which play a role in RNA interference. The encoded protein is highly basic, and contains a PAZ domain and a PIWI domain. It may interact with dicer1 and play a role in short-interfering-RNA-mediated gene silencing. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2009]

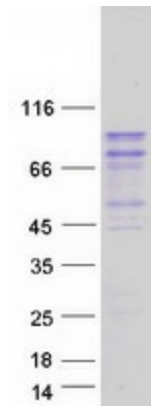
### Product images:



Circular map for RC228592



Western blot validation of overexpression lysate (Cat# [LY431620]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228592 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AGO2 protein (Cat# [TP328592]). The protein was produced from HEK293T cells transfected with AGO2 cDNA clone (Cat# RC228592) using MegaTran 2.0 (Cat# [TT210002]).