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# Product datasheet for RC224705

## SPAG16 (NM_024532) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | SPAG16 (NM_024532) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | SPAG16 |
| **Synonyms:** | PF20; WDR29 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

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**ORF Nucleotide Sequence:**

>RC224705 representing NM_024532
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGCTCAGCGAGGGATGCCCAGCTCCGCCGTGAGGGTCCTGGAAGAGGCGTTGGGCATGGGTTTGA
CGGCAGCCGGGGACGCGAGGGACACGGCGGACGCGGTGGCGGCTGAGGGCGCCTACTACCTGGAACAGGT
CACCATAACTGAAGCATCTGAAGATGACTATGAATATGAAGAGATACCAGATGACAATTTTAGCATCCCA
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GTGACTGAACTTAGAACTGTTGGGAATGTTCCAGATGTCTACACCCAGATTATGCTTTTGGAAAATGAGA
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ACCACACTTTACTGAAGGAGAAAATGCTGACCTCCTTGGAAAGAGACAAAGTAGTTGGGCAGATTTCTGG
ACTTCAAGAAACATTGAAGAAACTGCAAAGAGGACATAGTTACCATGGTCCTCAAATTAAAGTTGATCAT
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CCTGAATGTTTCTAAAGAAAGTCTTTCTCCAGCAAAATTTGACTACAAGCTGAAAAACATTTTTAGACTC
CATGAACTTCCAGTGAGCTGTGTCTCCATGCAACCCCACAAAGACATCCTAGTCTCCTGTGGCGAGGACC
GACTCTGGAAGGTGTTGGGCCTTCCAAAATGCAATGTGCTTCTCACGGGATTTGGCCACACTGACTGGCT
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GGTCCAAGTCCTGGCAATGAGGTGAATTTTGATTCATCAGGTCGAGTTTTAGCTCAGGCAAGTGGCAATG
GTGTTATCCATTTGCTAGATCTTAAATCTGGGGAGATTCACAAATTGATGGGCCACGAAAACGAGGCACA
CACGGTTGTGTTTTCTCACGACGGGGAGATTCTCTTTTCTGGAGGCTCTGACGGCACAGTTCGAACGTGG
TCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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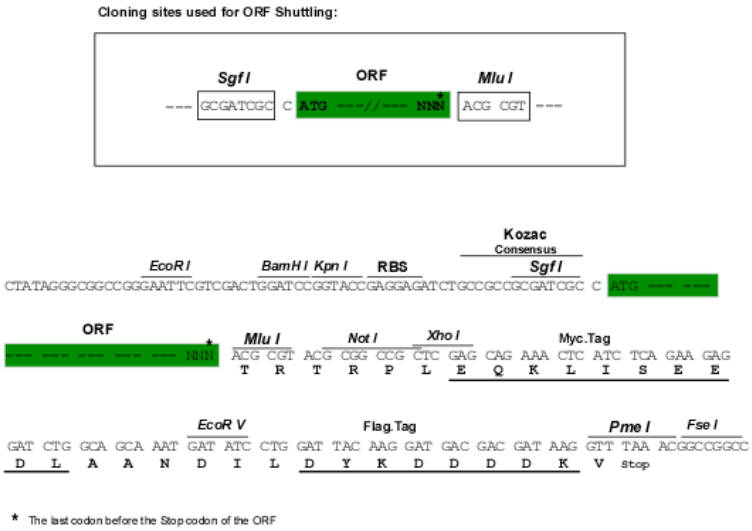
**Protein Sequence:**

```
>RC224705 representing NM_024532
Red=Cloning site Green=Tags(s)

MAAQRGMPSSAVRVLEEALGMGLTAAGDARDTADAVAAEGAYYLEQVTITEASEDDYEYEEIPDDNFSIP
EGEEDLAKAIQMAQEQATDTEILERKTVLPSKHAVPEVIEDFLCNFLIKMGMTRTLDCFQSEWYELIQKG
VTELRTVGNVPDVYTQIMLLENENKNLKKDLKHYKQAADKAREDLLKIQKERDFHRMHHKRIVQEKNKLI
NDLKGLKLHYASYEPTIRVLHEKHHTLLKEKMLTSLERDKVVGQISGLQETLKKLQRGHSYHGPQIKVDH
SREKENAPEGPTQKGLREAREQNKCKTKMKGNTKDSEFPIDMQPNPNLNVSKESLSPAKFDYKLKNIFRL
HELPVSCVSMQPHKDILVSCGEDRLWKVLGLPKCNVLLTGFGHTDWLSDCCFHPSGDKLATSSGDTTVKL
WDLCKGDCILTFEGHSRAVWSCTWHSCGNFVASSSLDKTSKIWDVNSERCRCTLYGHTDSVNSIEFFPFS
NTLLTSSADKTLSIWDARTGICEQSLYGHMHSINDAIFDPRGHMIASCDACGVTKLWDFRKLLPIVSIDI
GPSPGNEVNFDSSGRVLAQASGNGVIHLLDLKSGEIHKLMGHENEAHTVVFSHDGEILFSGGSDGTVRTW
S

TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

**Chromatograms:** https://cdn.origene.com/chromatograms/mk8045_d03.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_024532

**ORF Size:** 1893 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).

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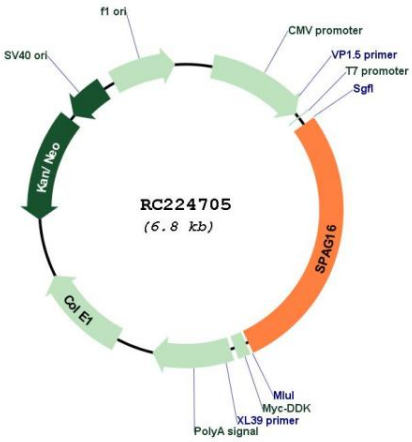
| | |
|---|---|
| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_024532.5 |
| **RefSeq Size:** | 2189 bp |
| **RefSeq ORF:** | 1896 bp |
| **Locus ID:** | 79582 |
| **UniProt ID:** | Q8N0X2 |
| **Cytogenetics:** | 2q34 |
| **MW:** | 70.6 kDa |
| **Gene Summary:** | Cilia and flagella are comprised of a microtubular backbone, the axoneme, which is organized by the basal body and surrounded by plasma membrane. SPAG16 encodes 2 major proteins that associate with the axoneme of sperm tail and the nucleus of postmeiotic germ cells, respectively (Zhang et al., 2007 [PubMed 17699735]).[supplied by OMIM, Jul 2008] |

## Product images:




Circular map for RC224705

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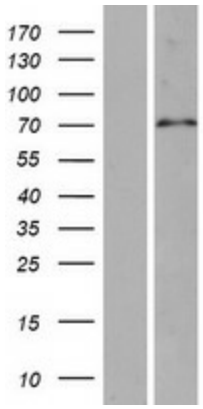
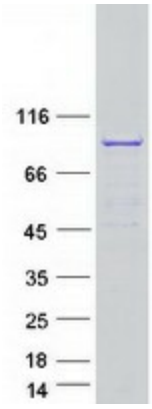



Western blot validation of overexpression lysate (Cat# [LY411248]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224705 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).




Coomassie blue staining of purified SPAG16 protein (Cat# [TP324705]). The protein was produced from HEK293T cells transfected with SPAG16 cDNA clone (Cat# RC224705) using MegaTran 2.0 (Cat# [TT210002]).

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