

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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGCTCAGCGAGGGATGCCAGCTCCGCCGTGAGGGTCCTGGAAGAGGCGTTGGGCATGGGTTTGA
 CGGCAGCCGGGGACGCGAGGGACACGGCGACCGGTGGCGGCTGAGGGCGCCTACTACCTGGAACAGGT
 CACCATAACTGAAGCATCTGAAGATGACTATGAATATGAAGAGATACCAGATGACAAATTTAGCATCCCA
 GAAGGTGAAGAAGATCTGGCAAAAGCAATTCAGATGGCCCAAGAACAGGCTACAGATACTGAAATTTTGG
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 GGTCCAAGTCTGGCAATGAGGTGAATTTTGATTATCAGGTCGAGTTTTAGCTCAGGCAAGTGGCAATG
 GTGTTATCCATTTGCTAGATCTTAAATCTGGGGAGATTCACAAATGATGGGCCACGAAAACGAGGCACA
 CACGGTTGTGTTTTCTCACGACGGGAGATTCTCTTTTCTGGAGGCTCTGACGGCACAGTTCGAACGTGG
 TCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224705 representing NM_024532
Red=Cloning site Green=Tags(s)

MAAQRGMPSSAVRVL EEALGMGLTAAGDARDTADAVAAEGAYYLEQV TITEASEDDYEYEEIPDDNFSIP
 EG EEDLAKAIQMAQE QATDTEILERKT VLP SKHAVPEVIEDFLCNFLIKMG MTRTLDCFQSEWYELIQKG
 VTELRTVGNVPDYYTQIM LLENENKNLKKDLKHYKQAADKAREDL LKIQKERDFHRMHHKRIVQEK NKL I
 NDLKGLKLHYASYEPTIRV LHEKHHTLLKEKMLTSLERDKVVGQISGLQETLKKLQRGHSYHG PQIKVDH
 SREKENAPEGPTQKGLREAREQNKCKTKMKGNTKDSEFPIDMQPNPNLNVSKESLSPAKFDYKLNIFRL
 HELPVSCVSMQPHKDILVSCGEDRLWKVLGLPKCNVLLTGF GHTDWLSDCCFHPSGDKLATSSGD TTVKL
 WDLCKGDCILTFEGHSRAVWSCTWHSCGNFVASSSLDKTSKIWDVNSERCRTLYGH TDSVNSIEFFPFS
 NTLTSSADKTL SIWDARTGICEQSLYGHMHSINDAIFDPRGHMIASCDACGVTKLWDFRKL LPIVSIDI
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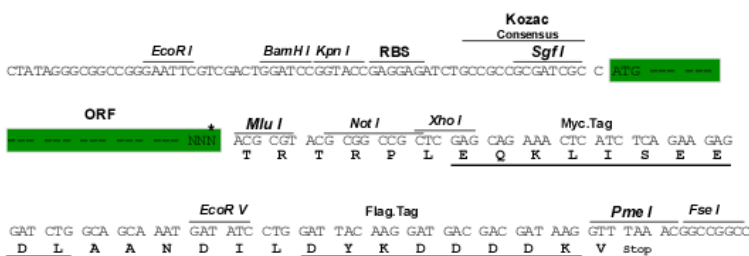
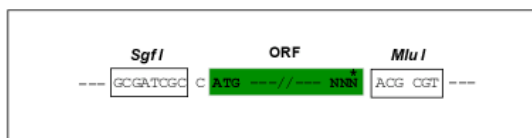
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



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).

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_024532.5](#)

RefSeq Size: 2189 bp

RefSeq ORF: 1896 bp

Locus ID: 79582

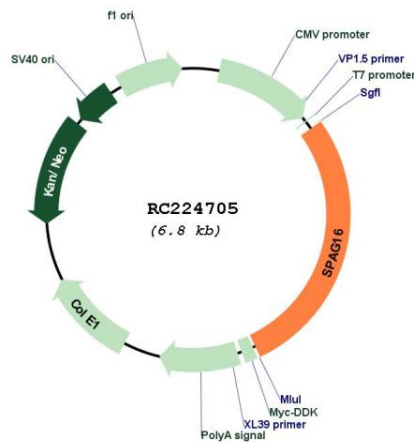
UniProt ID: [Q8N0X2](#)

Cytogenetics: 2q34

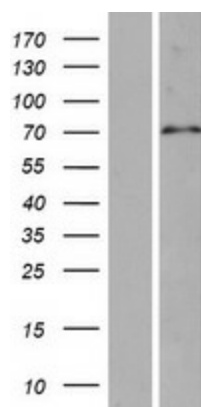
MW: 70.6 kDa

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]

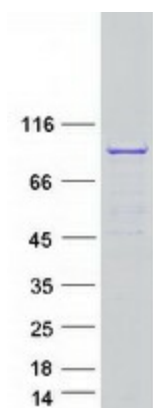
Product images:



Circular map for RC224705



Western blot validation of overexpression lysate (Cat# [LY411248]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected 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]).