

Product datasheet for **RG216144**

SPAG6 (NM_012443) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPAG6 (NM_012443) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPAG6
Synonyms:	CFAP194; CT141; FAP194; pf16; Repro-SA-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG216144 representing NM_012443
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGTCAGAGGCAGGTGCTGCAAGTGTTCGAGCAATACCAGAAGCCAGGACCCAGTTCGTGCAGATGG
 TGGCGGAGCTGGCGACTAGACCCAAAACATCGAGACGCTGCAGAACCGGGTGTAAATGTCTTTGCTGAG
 AACTCTTCTTCTGGACGTGGTCCCAACAATTCAACAGACTGCTGCTTTGGCTCTTGGGAGACTGGCCAAT
 TATAATGATGACCTAGCAGAAGCTGTTGTGAAGTGCACATTCTCCACAGCTTGTTTATTCATTGGCAG
 AACAGAATCGTTCTACAAGAAAGCAGCTGCCTTTGTGTACGAGCAGTTGGTAAACATTCTCCCCAGCT
 AGCTCAGGCAATAGTCGATTGTGGAGCACTGGATACGCTGGTCATATGCTTGAAGATTTTGACCCTGGA
 GTCAAGGAGGCTGCAGCCTGGCACTTAGATATATTGCAAGACATAATGCAGAACTGTCACAAGCTGTGG
 TGGATGCAGGAGCTGTTCTCTTTAGTACTCTGTATCCAGGAGCCAGAAATTGCTTTGAAAAGGATTGC
 TGCTTCGGCCCTCAGTGATATTGCAAAGCATTCTCCAGAGTTAGCACAGACAGTAGTGGATGCAGGAGCT
 GTTGCTCATTTAGCCAGATGATCCTGAACCCTGATGCTAAATTGAAGCATCAGATCCTTTACAGCTCTCA
 GTCAGGTTTCAAAACATTCCGTGGATCTGGCAGAAATGTTGTTGAAGCAGAGATTTTCCAGTTGTA
 TACCTGTCTGAAGGACAAGGATGAATACGTGAAGAAAAATGCTTCTACTTTAATTAGAGAGATTGCAAAA
 CATAACCCGAGCTTTCACAGCTGGTAGTTAACGCAGGAGGGTGTGCTGCCGTGATTGACTGCATTGGGT
 CCTGCAAAGGGAACACACGGCTGCCTGGCATCATGATGCTTGGTTATGTAGCAGCTCATTCTGAGAACCT
 AGCAATGGCAGTCATCATTTCTAAGGGTGTACCCAGTTGTCAGTCTGCTGTGCAAGAAGCCGGAAGAT
 CATATTAAGGCTGCAGCTGCTTGGCCCTTAGGACAGATTGGAAGACACACTCTGAACACGCACGGGCTG
 TTGCAGTCACAAATACTTTGCCAGTTCTGCTTTCTTTGTACATGTCAACAGAAAGTTCTGAGGATCTCCA
 AGTAAAAAGTAAAAAAGCCATAAAGAATATCCTGCAAAAATGTACCTACTTACCAGCCCTTGAACCATTT
 CTATATGATGCTCCTCCCAATATTCTGAAACATGTGGTTGGACAGTTCAGTAAGGTGCTGCCGATGATA
 GCAAAGCTCGACGACTTTTTGTAACAAGTGGTGGCCTTAAAAAGTTCAAGAGATAAAGCAGAACCTGG
 TTCTCTCCTTCAAGAATACATCAACAGTATTAACAGTTGTTACCCCGAGGAAATAGTGAGGTATTATTCC
 CCTGGATATTCAGATACACTTCTGCAGAGGGTGGACAGCTATCAACCACTTAATAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG216144 representing NM_012443
 Red=Cloning site Green=Tags(s)

MSQRQVLQVFQYQKARTQFVQMVLAELATRPQNIETLQNAGVMSLLRLLLLDVVPTIQQTAALALGRLAN
 YNDLAEAVVKCDILPQLVYSLAEQNRFYKKAFAVLRVAVGKHSPLAQAIIVDCGALDTLVICLEDVDFDPG
 VKEAAAWALRYIARHNAELSQAVVDAGAVPLLVLCIQEPEIALKRIAASALSDIAKHSPELAQTVVVDAGA
 VAHLAQMILNPDAKLKHQILSALSQVSKHSVDLAEMVVEAEIFPVVLTCLKDKDEYVKKNASTLIREIAK
 HTELSQLVYNAGGVAVIDCIGSCKGNTRLPGIMMLGYVAHSENLAMAVIISKVGPQLSVCLSEEPED
 HIKAAAALWALGQIGRHTPEHARAVAVTNTLPVLLSLYMSTESSEDLQVKSCKAIKNILQKCTYLPALPEPF
 LYDAPPNLIKHVVGQFSKVLPHDSKARRLFVTSGLLKVQEIKAEPGSLQLQEYINSINSCYPEEIVRYYS
 PGYSDTLQRVDSYQPLNN

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI
BamHI *KpnI*
RBS
Kozac
Consensus
SgfI
AscI

CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

HindIII
NheI *RsrII*
MluI
NotI
XhoI
GFP Tag

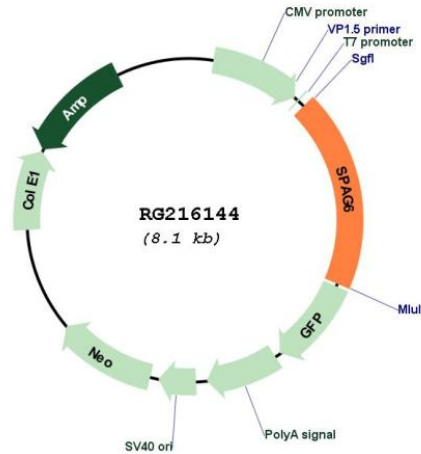
CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---

PmeI *FseI*

--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT

- - E E R V Stop

Plasmid Map:



ACCN: NM_012443

ORF Size: 1527 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_012443.4](#)

RefSeq Size: 2630 bp

RefSeq ORF: 1530 bp

Locus ID: 9576

UniProt ID: [O75602](#)

Cytogenetics: 10p12.2

Gene Summary: The correlation of anti-sperm antibodies with cases of unexplained infertility implicates a role for these antibodies in blocking fertilization. Improved diagnosis and treatment of immunologic infertility, as well as identification of proteins for targeted contraception, are dependent on the identification and characterization of relevant sperm antigens. The protein expressed by this gene is recognized by anti-sperm antibodies from an infertile man. This protein localizes to the tail of permeabilized human sperm and contains eight contiguous armadillo repeats, a motif known to mediate protein-protein interactions. Studies in mice suggest that this protein is involved in sperm flagellar motility and maintenance of the structural integrity of mature sperm. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2011]