

Product datasheet for **RG219119**

SPAG8 (NM_001039592) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	SPAG8
Synonyms:	BS-84; CILD28; CT142; HSD-1; hSMP-1; SMP1; SPAG3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG219119 ORF sequence, **codon optimized**.

Due to the complexity of NM_001039592, the ORF clone is codon optimized for mammalian Expression.

The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGAAACTAACGAATCAACCGAAGTTCTAGATCTCGAAGCAGAAGCCTGGACATCCAACCATCTCAG
AAGGTCTTGCCCAACAGCGAACCATTCTCTTCTGATGACTACCCCGCTCCGCCTTGCCGCCGC
AACAGCCGCTGCCGCTGCCGCCAGCGCCGCCGCTACTGCCGCTTTACAACAGCAAAGGCCGCT
GCCCTGTCAACTAAACACCCGCACCTTGCTCTGAGTTTATGGAACCTTCTCCGACCCAGCCTTCTCG
GCGAACCTGCGCTGGCCCTGGTTTACACACAATATTGCTCACGGCTCCCTCGGCTTTGAACCTGTCTA
TGTATCTGTCATCGCCCAAGACACATGTACCACTACAGACCACTCTCTAACCCAGGCCCGCTGCCCGGA
AGTTCTAGCGGACCAAGTTTGGGATCCTCAAGTGGAGCTGGACACGGTTAGGCTCCGGATCCGGCCCCG
GTTGTGGTTCAAGTCCCGGTAGTGAAGCGGCCCGGCCAGGTAGTGGTCCAGGTTCCGGCCCCGGTCA
CGGATCTGGTAGTCATCCAGGTCCCGCTCTGGTCTGGGCTGACACCGGTCCAGACAGTGAACCTCTCC
CCCTGTATCCCCCGGATTTAGAAATCTTGTTCAGACAGGGTGCCAACTATACCTCATGGTCCACAGC
ATTGCCCATGGGAGCCACAGAAGCAGCCGCTTGGGAATTTCTGCAAGTCTTGAACAGGCGCTAGAGG
CCTGTGAAACCCCGACATTAAAGGTAACTGATGGTGTGCTACGAGACACTGCCTAGAGGCCAGTGC
CTTCTGTACAATTGGGAAGAGGAACGCGCAACAAACCATCTCGACCAAGTCCCTTCTATGCAGGACGGAA
GCGAGTCATTTTTTCCGACACGGCCACCGAGGTCTTCTCACTATGCAACTGAAGTCCCCAATGCCATC
TTCAACCACTCAGAAAGATTCAATCAACCAACCCGGTAACGTTTACTGGCCCTTAGAGGAAAGCGAGAA
GCCATGCTTGAGATGCTTCTGCAGCATCAATTTGTAAGAAGTGCAGGCAGAACAAAGAGCCGACCCGCA
AGCTGTTTCGAAGTGGAGAGTGTGACTCACCACGACTATCGGATGGAGCTGGCACAAGCTGGAACCTCCGC
CCCCACTAAGCCTCACGATTATAGACAGGAGCAGCCTGAAACTTTCTGGATCCAAAGAGCCCCACAATTG
CCTGGCGTCTCCAATATTAGAACACTCGACACCCCTTTAGGAAGAATTGTTCTTTAGCACTCCGGTCC
CACTCTCTCGGCAAACTCCTTCCCTACGAACCAGAAAATATCCTTATCAGCTGGGCGAAATCTCCTC
ACTGCCTTGCCCCGGCGGAGACTGGGAGGTGGAGGAGACGCATGACACCTTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG219119 representing NM_001039592

Red=Cloning site Green=Tags(s)

METNESTEGSRSRSLDIQPSSEGLGPTSEFPSSDDSPRSALAAATAAAAAAASAAAATAAFTTAKAA
ALSTKTPAPCSEFMESPSSDPSLLGEPACAGPGFTHNIAHGS LGFEPVYVSCIAQDCTTTDHSSNPGVPV
SSSGPVLGSSSGAGHSGSGSGPGCGSVPGSGSGPGSGPGHSGSHPGPASGPGPDTGPDSELS
PCIPPGFRNLVADRVPNYTSWSQHCPWEPQKQPPWEFLQVLEPGARGLWKPPDIKGLMVCYETLPRGQC
LLYNWEEERATNHLQVPSMQDGSSEFFFRHGHRLGLTMQLKSPMPSTTQKDSYQPPGNVYWPLRGKRE
AMLEMLLQHQICKEVQAEQEPTRKLFEEVSVTHHDYRMELAQAGTPAPTKPHDYRQEQPETFWIQRAPQL
PGVSNIRTLDTFPRKNCSTFPVPLSLGKLLPYEPENYPYQLGEISSLP CGGRLGGGGGRMTPF

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001039592

ORF Size: 1455 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.

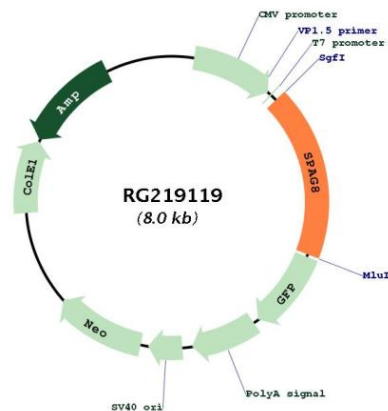
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001039592.1](#), [NP_001034681.1](#)

RefSeq Size: 1715 bp
RefSeq ORF: 1458 bp
Locus ID: 26206
UniProt ID: [Q99932](#)
Cytogenetics: 9p13.3

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 encoded by this gene is recognized by sperm agglutinating antibodies from an infertile woman. This protein is localized in germ cells of the testis at all stages of spermatogenesis and is localized to the acrosomal region of mature spermatozoa. This protein interacts with ACT (activator of CREM in testis) and may play a role in CREM (cAMP response element modulator)-ACT-mediated gene transcription during spermatogenesis. This protein may also play a role in spermatogenesis by regulating microtubule formation and cell division. Alternatively spliced variants that encode different protein isoforms have been described but the full-length sequences of only two have been determined. [provided by RefSeq, Jul 2012]

Product images:



Circular map for RG219119