

Product datasheet for **SC313797**

Sperm Flagellar 2 (SPEF2) (NM_144722) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sperm Flagellar 2 (SPEF2) (NM_144722) Human Untagged Clone
Tag:	Tag Free
Symbol:	Sperm Flagellar 2
Synonyms:	CT122; KPL2; SPGF43
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >SC313797 representing NM_144722.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTCGGAGATCCTGTGCCAGTGGCTCAACAAGGAGTTGAAGGTGTCCCGGACCGTGAGTCCCAAGTCA
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TTTTCAGAAATTTTGGACAGCAGGGTTTCAAGTGCCAACTTAATAATTTTCTCGCTTGGAGCCAACA
CTTAACCTTCTGGGTGTGCAAGTTTGATCAGAATGTGGCCCATGGCATCATCACAGAAAAGCCTGGGGTG
GCAACAAAGCTGTTATATCAATTGTACATTGCTCTTCAGAAAAAGAGAAAAGTGGACTGACTGGAGTG
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AGACTTAGACACATGATACCACGTCAAAGTATTTCAATCTGATGCGGATTACATACAGGTTTCAAGAA
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GCCCAAAAATGATGAAAAGAAAAAGAGGCAGAAGATGTGGCTGATGAAATTAAGAAGTTCGAAGCA
TTAATAAAAAAGGATCTCCAAGCAAAAGAAAGTGCATCCAAGACTTCTTTAGATACAGCAGGCCAGACA
ACCACCGATTTGTTAAATACTTACTCAGATGACGAGTACATTAATAAAATCCAGAAGCGCCTTGAAGAA
GATGCTTTTGCACGAGAGCAAAGGGAGAAAAGACGGCGGAAATTTGTTAATGGACCAAGTAAAGCCAC
GAAGCACAAAGAGGAGGCTTATCGGGAGGAACAGCTGATTAACCGCTGATGCGGCAGTCCAGCAGGAG
CGCAGGATTGCCGTGCAGCTCATGCATGTTTGGCATGAAAAGGAAGTTTATGGCAAAACAGAAATTTT
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GCAAAAACAAGCCAAGATTGACTTTGAAGAACAATTCCTTAAAGAAAAGAGATTTTATGATCAGATTGCT
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GATTGGAAGGAATATTTTAAATGCAAAACCATATATGAACAAGCCTCTGTTAAGACACTACCTGCT
AACCCCTCAAGAGAACAACCTACAGAACTGGAGAAAAGGAGCTTGTAGATACCAATGATTATGAAGAA
TATAAGGTACCTACTGATATGAATAA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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Restriction Sites: SgfI-MluI

ACCN: NM_144722

Insert Size: 1545 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_144722.3](#)

RefSeq Size: 2982 bp

RefSeq ORF: 1545 bp

Locus ID: 79925

UniProt ID: [Q9C093](#)

Cytogenetics: 5p13.2

MW: 61.2 kDa

Gene Summary: Required for correct axoneme development in spermatozoa. Important for normal development of the manchette and sperm head morphology. Essential for male fertility. Plays a role in localization of the intraflagellar transport protein IFT20 to the manchette, suggesting function as an adapter for dynein-mediated protein transport during spermatogenesis. Also plays a role in bone growth where it seems to be required for normal osteoblast differentiation.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) lacks more than half of the 3'-most exons and has a 3' end that extends into an intron compared to variant 1. The resulting isoform (2) has a shorter and distinct C-terminus compared to isoform 1.