

## Product datasheet for **SC305171**

### Sperm Flagellar 2 (SPEF2) (NM\_024867) Human Untagged Clone

#### Product data:

|                           |                                                                                         |
|---------------------------|-----------------------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                                     |
| Product Name:             | Sperm Flagellar 2 (SPEF2) (NM_024867) 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)                                                                    |
| Fully Sequenced ORF:      | >SC305171 representing NM_024867.<br>Blue=Insert sequence Red=Cloning site Green=Tag(s) |

GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG  
 GATCCGGTACCGAGGAGATCTGCCGCC**GCGATCGCC**  
 ATGTCGGAGATCCTGTGCCAGTGGCTCAACAAGGAGTTGAAGGTGTCCCGGACCGTGAGTCCCAAGTCA  
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 TTTTCAGAATTTTGGACAGCAGGGTTTCAAGTGCCAACTTAATAATTTTCTCGCTTGGAGCCAAACA  
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 AACCCCTCAAGAGAACAACCTACAGAATGGAGAAAAGGACTTGCTAGATACCAATGATTATGAAGAA


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TATAAGACATGGTTGGAGAGTGGGCCTTACCAGAAGAAATGGTTGACAATTTACCACCCTCCAACAAT  
TGCATACTGGGCCATATTCTTCACAGGCTAGCTGAAAAATCTCTTCTCCTCGAGCGGAATCAACAACA  
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CGAGATCAGTTCTTAGATATGGCACCTAAAGGCATAATAGGAAATAAAGCATTACTGACATTCTGATC  
GATTTGGTGACCCTGAACCTTGGCACAACAACCTTCTAGTAATTGGATGCACCTTACCAACCTGAA  
TTACAGGAATTAACATCTTTATTAACAGTCAACTCCGAGTTCTGGAGTGGCGGAAGTTCTGTTAGTA  
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TTTTTCTTTAGGCTATTTGCTGACTATGAGAAGGATCCACCCAGCTTGACTACACACAGATGCTGCTT  
TACTTTGCTTGCCACCCAGACACCGTGAAGGAGTCTACAGGGCCCTCAGTGTGGCTGTTGGAACCTCAT  
GTCTTCCAACAAGTCAAAGCTTCCATTCCAAGTGCAAAAAGACCTCCTCAACTGATGCAGGTCCAGCT  
GAGGAATTTCTGAACCTGAGGAAAAATGCTGCAAGAGAAGAAAGGAAATTAAGACGACACGGAGAAA

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AGGGAACAGAAGGATGAAGAAATCCCTGAAAATGCAAACAATGAAAAGATGTCCATGGAACACTACTC
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ATTTATGCAGAGGGCTTCATAAAACATTTCAAGACCTAGGTGCCAAGAACCTGGAGCCAATTGAAGTC
GCTGTTCTCTTGAAGCATCCTTTTATTCAAGACCTGATTTCAAATTATTCAGACTATAAGTTTCCTGAT
ATTAATAATTCTCAAAGGAGTGAACATGTACAAGGAAGTGATGGAGAGAGATCACCTCAAGACAT
ACAGAGGAAAAGAAATGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGCCGCGC

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|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Restriction Sites:</b>     | Sgfl-MluI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>ACCN:</b>                  | NM_024867                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Insert Size:</b>           | 5469 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>OTI Disclaimer:</b>        | 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).                                                                                                                                                                          |
| <b>OTI Annotation:</b>        | 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.                                                                                                                                                                                                                                                      |
| <b>Components:</b>            | 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).                                                                                                                                                                                                                                                                                                                                    |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol> |
| <b>RefSeq:</b>                | <u><a href="#">NM_024867.3</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>RefSeq Size:</b>           | 5651 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RefSeq ORF:</b>            | 5469 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Locus ID:</b>              | 79925                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>UniProt ID:</b>            | <u><a href="#">Q9C093</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Cytogenetics:</b>          | 5p13.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>MW:</b>                    | 209.8 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 (1) represents the longer transcript and encodes the longer isoform (1).