**Figure 6—source data 1.** Primers for plasmid construction.

|  |  |
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| **Gene** | **Sequence (5’→3’)** |
| *SUN5* | CGGGGTACCCCGATGCCCCGGACGAGGAAC |
| TGCTCTAGAGCAGGATAGGG GCTCTAGGTGTGA |
| *SPATA6* | CGGGGTACCCCGATGCCGAAGGTGAAGGCGCTG |
| TTCAGTTGTTCAGCTGTCACTGGG |
| Mouse *CFAP52* | GGGGTACCCCATGGAAGAACAAGTTTTACCCGAGC |
| TGCTCTAGAGCACGAAGCAAATGGGTATTTCCACC |
| Human *CFAP52* | TACGGGATCACCAGTACTCGGGAGGCTGAGACAG |
| TCACCAGATATCTGGGGAACACAGACACTGGGGCC |
| *CFAP20* | GCCGCGATCGCCATGTTCAAGAACACGTTCCAGAGT |
| GTACGCGTTTGTTTGGCCTTGTTCTGAACTGG |
| *PACRG* | GCCGCGATCGCCATGCCGAAGAGGACTAAACTGCTGC |
| CGTACGCGTGTTCAGCAAGCACGACTCATAGGT |
| *DNAI2* | GGGGTACCCCATGGAGATCGTCTACGTGTACCTGA |
| TGCTCTAGAGCAGGTGGGCACATCCTCTTGCT |
| *ODAD1* | GGGGTACCCCATGATGGAGTTGGAAAGGCG |
| TGCTCTAGAGCAGTTGTAGCCCCTGGAGTCCTT |
| *ODAD3* | GGGGTACCCCATGACGTCCCCCCTGTGCTGG |
| CCGCTCGAGCGGAGATCTGCGCAACCTATTGCGCTTC |
| *RSPH1* | ATAAGAATGCGGCCGCTAAACTATATGTCGGACCTGGGCTCTGAGG |
| CCGCTCGAGCGGATCCTGGAGGTCTGACGGTTCTTCA |
| *RSPH3* | CCGCGATCGCCATGACAGACCGTAACCCTCGGAC |
| GTCGCGTCTCTGCCATAAGGTGTCCCCCCTCTT |
| *DNALI1* | GGGGTACCCCATGATACCCCCAGCAGACTCTC |
| TGCTCTAGAGCACTTCTTCGGTGCGATAATGC |
| *DRC2* | GGGGTACCCCATGTCTAAAAAAGGAAAAAAGCCC |
| TGCTCTAGAGCACAGGATATGGGAGGCAATGTG |
| *DRC4* | GGGGTACCCCATGGCACCCAAAAAGAAAGGGAAGA |
| CCGCTCGAGCGGTGTAGGGGCACCCACAAGTCCTG |
| *SPAG6* | GGGGTACCCCATGAGCCAGCGGCAGGT |
| CCGCTCGAGCGGGTTAATAAGAGGCTGATAGCTGTCG |
| *SPATA6*-N | GGGGTACCCCATGCCGAAGGTGAAGGCGCTG |
| TGCTCTAGAGCACAGATTTAAATGGGCCAGCCGC |
| *SPATA6*-C | GGGGTACCCCATGGGACCCTATGAATTCAAAAAGGAACAGA |
| TGCTCTAGAGCAGAAGCTTTCCTGTGTATGAGAAACAGAACTAC |
| *SPATA6*-M | GGGGTACCCCATGGAATGTCTGATAAGCTCAAGGAAGT |
| TGCTCTAGAGCACTTTGGTGTTGTTGAAGGTGC |
| *CFAP52*ΔWD4~11 | CGGGGTACCCCGATGGAAGAACAAGTTTTACCCGAGC |
| TGCTCTAGAGCATTGGCACTCGGTTGGCCAG |
| *CFAP52*ΔWD9~11 | GGGGTACCCCATGGAAGAACAAGTTTTACCCGAGC |
| TGCTCTAGAGCAAGCCTCCTCCAGCTTCTGAGTCT |
| *CFAP52*ΔWD10~11 | CGGGGTACCCCGATGGAAGAACAAGTTTTACCCGAGC |
| TGCTCTAGAGCAACCTTCCAATTCTCTGATTACTGT |