

## Product datasheet for **RG223494**

### **RSPH4A (NM\_001010892) Human Tagged ORF Clone**

#### **Product data:**

|                                  |                                  |
|----------------------------------|----------------------------------|
| <b>Product Type:</b>             | Expression Plasmids              |
| <b>Tag:</b>                      | TurboGFP                         |
| <b>Symbol:</b>                   | RSPH4A                           |
| <b>Synonyms:</b>                 | CILD11; dJ412I7.1; RSHL3; RSPH6B |
| <b>Mammalian Cell Selection:</b> | Neomycin                         |
| <b>Vector:</b>                   | pCMV6-AC-GFP (PS100010)          |
| <b>E. coli Selection:</b>        | Ampicillin (100 ug/mL)           |



**ORF Nucleotide Sequence:** >RG223494 representing NM\_001010892  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGAGGACTCAACCTCCCGAAGCAAGAAAAAGAAAACCAAGAAGAACTAGGGGAAACAAGCGGCCAT  
 GGAAGGAAAGACAGCAGCTTCTCCCAATATTCTGAGCCTGAGTCGTCTGAGCCCTTGGAGGCGAAGCA  
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 CAAAGATGCCGCTTCTGGGAAAGATCTTGGGTCTGGAATGAATTATATTGAGCTGAAGTGAATTTT  
 GTGAGGGGAAGATGAAGAGGAAGTGAAGAGGAAGATGAGCTGAAGAGAGGACAATGGAGAAAGTGA  
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

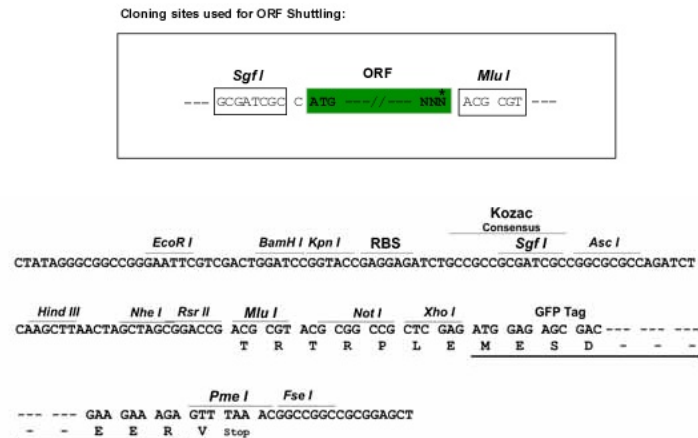
**Protein Sequence:** >RG223494 representing NM\_001010892  
 Red=Cloning site Green=Tags(s)

MEDSTSPKQEKENEELGETRRPWEGKTAASPQYSEPESEPLEAKQGPETGRQSRSSRPWSPQSRATP  
 LGGPAGPETSSPAPVSPREPSSSPPLAPARQDLAAPPQSDRTTSVIPEAGTYPDPLEQSSDKRESTPH  
 HTSQSEGNTFQQSQPKPHLCGRRDVSYNNAKQKELRFDVFEEDSNSDYDLQQPAPGGSEVAPSMLEIT  
 IQNAKAYLLKTSNSGFNL YDHL SNML TKILNERPENAVDIFENISQDVKMAHFSKKFDALQENELLPT  
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 QRCRFWGKILGLEMNYIVAEEVFREGEDEEEVEEDVAEERDNGESEAHEDEEDELPSFYKAPQAIKPE  
 ESRTGANKYVYFVNEPGRPWVYKLPVIPAQIVIAARKIKKFFTGRDAPII SYPPFPGNESNYLRAQIAR  
 ISAGTHVSPLGFYQFEEEEEEEEAEGRNSFEENPDFEGIQVIDL VESL SNWVHHVQHILSQGRCNWF  
 NSIQNEEEEEEEDEEKDDSDYIEQEVGLPLL TPISEDLIQNIPPWTTRLSSNLIPQYAI AVLQSNLWP  
 GAYAFSNGKKFENFYIGWGHKYS PDNYTPPVPPVYQYPSGPEITEMDDPSVEEEQAFRAAQEAVLLAA  
 ENEESEDEDEEDDYD

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001010892

**ORF Size:** 2148 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.

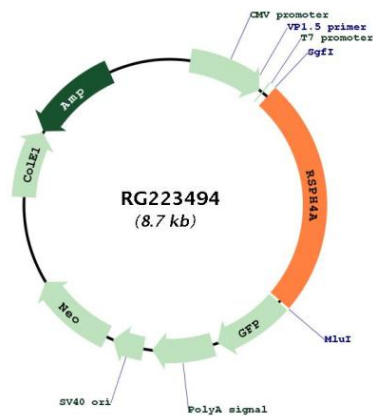
**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001010892.3](#)

RefSeq Size: 2825 bp  
 RefSeq ORF: 2151 bp  
 Locus ID: 345895  
 UniProt ID: [Q5TD94](#)  
 Cytogenetics: 6q22.1

**Gene Summary:** This gene encodes a protein that appears to be a component the radial spoke head, as determined by homology to similar proteins in the biflagellate alga *Chlamydomonas reinhardtii* and other ciliates. Radial spokes, which are regularly spaced along cilia, sperm, and flagella axonemes, consist of a thin 'stalk' and a bulbous 'head' that form a signal transduction scaffold between the central pair of microtubules and dynein. Mutations in this gene cause primary ciliary dyskinesia 1, a disease arising from dysmotility of motile cilia and sperm. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2009]

### Product images:



Circular map for RG223494