

Product datasheet for **RG231359**

ODF2 (NM_153436) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ODF2 (NM_153436) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ODF2
Synonyms:	CT134; ODF2/1; ODF2/2; ODF84
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG231359 representing NM_153436
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGACCAGCAAGGACCTCATCAGAATAGGTTCCATCGTGTGGGAAGAACGGAGTAACGAGTCTCA
 CGCAGAAAAAGGTCTTGAGAGCACCTTGTGGCGCACCCAGTGTAAGTGTGACGAAATCTCACAAGCGAGG
 AATGAAAGGGGACACTGTGAATGTGCGGCGGAGTGTCCGGGTGAAAACCAAGGTACCTTGGATGCCCCCT
 GGAAAAATCATCTGCCCGCCTGTGGGATGCAAGTGGGAGAATCCACCTCATTGCCTGGAGATCACGCCAC
 CATCTTCAGAAAAGCTGGTCTCAGTGTGCGGTTAAGTGACCTCTCTACAGAAGATGATGACTCAGGTCA
 CTGTAAAAATGAACCGTTATGATAAGAAGATTGATAGTCTAATGAATGCGGTTGGTTGTCTGAAGTCTGAG
 GTCAAGATGCAAAAAGGTGAGCGCCAGATGGCCAAAAGGTTCTGGAGGAACGGAAGGAAGAGCTGGAGG
 AGGTGGCCACGAACTGGCTGAGACTGAGCAGGAGAACACGGTGTGAGGCACAACATCGAGCGCATGAA
 GGAGGAGAAGGACTTCACCATACTTCAGAAGAAACACCTACAACAGGAGAAGGAGTGCCTCATGTCCAAG
 CTGGTGGAGGCGGAAATGGATGGGGCTGCGGCTGCCAAGCAGGTATGGCCTTGAAGGATACCATCGGGA
 AGCTGAAAACGGAGAAAACAAATGACCTGCACGGACATCAACACCCTGACAAAGGCAAGGAAGTCTCTCT
 GCAGAAGCTGAGCACATTTGAGGAGACCAACCGCACCTCCGAGACCTCCTGAGGGAACAGCACTGCAAA
 GAGGATTTGAAAGACTAATGGAGCAACAAGGAGCACTGCTGAAACGGCTGGCGGAGGCCGACTCAGAGA
 AAGCGCGCTGCTGTTACTGCTGCAAGACAAGGACAAGGAGGTGGAAGAGCTCCTCAGGAAATACAATG
 TGAGAAGGCTCAAGCAAAGAGCCTCTGAGCTTTCTAAATCCATGGAGTCCATGCGTGGCATTTCGAG
 GCACAGCTTCGGTCCAAAGAGGCTGAGAACAGTCGCTGTGCATGCAGATTAAGAATCTGGAGCGCAGCG
 GGAAATCAGCATAAGGCAGAAGTGGAGGCCATCATGGAGCAGCTGAAGGAGTTGAAGCAGAAGGGAGACCG
 AGACAAAGAGAGCTTGAAGAAGGCCATCCGAGCCAGAAGGAGCGAGCCGAGAAGAGCGAGGAGTATGCT
 GAGCAGCTACACGTGCAACTCGCTGACAAGGATCTTTATGTCGCTGAAGCTTTATCCACTCTGGAATCCT
 GGAGGAGCCGCTACAACCAAGTTGTA AAAAGAAAAGGGAGACCTTGAGCTGGAAATATTGTCTGATGA
 CCGGGTAAACAGATCTTGTAAACCAACAACAACCCCTGGAGGAGAAGATGCGGGAAGACCGGGATAGCCTG
 GTGGAGAGACTACACCGTCAGACTGCTGAGTATCCGCATTCAAGCTGGAGAATGAGAGGCTGAAGGCCA
 GCTTTGCTCCAATGGAGGACAACTCAACCAGGCACACCTCGAGGTCCAGCAGCTGAAGGCCTCAGTGAA
 GAACTATGAGGGGATGATTGACAACTATAAGAGTCAGGTGATGAAGACCAGATTGGAGGCTGATGAAGTA
 GCTGCCAGCTAGAACGCTGTGACAAAGAGAACAAGATCCTTAAAGATGAGATGAACAAAGAGATTGAGG
 CGGCACGAAGGCAGTTCCAGTCTCAGCTGGCTGACCTGCAGCAGCTCCCTGACATCCTGAAGATCACGGA
 GGCGAAGCTGGCTGAGTGCCAAGACCAACTGCAGGGCTATGAGCGGAAGAACATCGACCTCACAGCCATC
 ATATCAGACCTGCGCAGCCGGTAAGGGACTGGCAGAAAGGGTCCACGAACTGACCCGAGCAGGGGCC
 GCATACCAAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG231359 representing NM_153436
 Red=Cloning site Green=Tags(s)

MADQQGPHQNRFPSCGKNGVTSLTQKKVLRAPCGAPSVTVTKSHKRGMKGDTVNVRRSVRVKTKVPWMP
 GKSSARPVGCKWENPPHCLEITPPSSEKLVSMRLSDLSTEDDSDGHCKMNRDYDKIDSLMNAVGLKSE
 VKMQKGERQMAKRFLEERKEELEVAHELAEHENTVLRHNIERMKEEKDFTILQKKHLQQEKECLMSK
 LVEAEMDGAAAAKQVMALKDTIGKLGKTEKQMTCTDINTLTRQKELLLQKLSTFEETNRTLRLDLREQHCK
 EDSERLMEQQGALLKRLAEADSEKARLLLLLQDKDKEVEELLQEIQCEKAQAKTASELSKSMESMRGHLQ
 AQLRSKEAENSRLCMQIKNLSRSGNQHKAEVEAIMEQLKELKQKGDREKESLKKAIRAQKERAEEKSEEYA
 EQLHVQLADKDLVYAEALSTLESWSRYNQVVKEKGDLELEIIVLNDRVTDLVNQQTLEEKMRDRDSL
 VERLHRQTAEYSAFKLENERLKASFAPMEDKLNQAHLEVQQLKASVKNYEGMIDNYKSQVMKTRLEADEV
 AAQLERCDDKENKILKDEMNKEIEAARRQFQSQLADLQQLPDILKITEAKLAECQDQLQGYERKNIDLTAI
 ISDLRSRVRDWQKGSHELTRAGARIPR

TRTRPLE - GFP Tag - V

Restriction Sites:

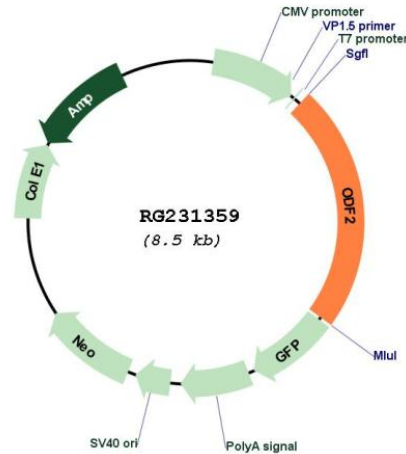
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_153436

ORF Size: 1971 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.

RefSeq: [NM_153436.1](#), [NP_702914.1](#)

RefSeq Size: 2125 bp

RefSeq ORF: 1974 bp

Locus ID: 4957

UniProt ID: [Q5BJF6](#)

Cytogenetics: 9q34.11

Gene Summary: The outer dense fibers are cytoskeletal structures that surround the axoneme in the middle piece and principal piece of the sperm tail. The fibers function in maintaining the elastic structure and recoil of the sperm tail as well as in protecting the tail from shear forces during epididymal transport and ejaculation. Defects in the outer dense fibers lead to abnormal sperm morphology and infertility. This gene encodes one of the major outer dense fiber proteins. Alternative splicing results in multiple transcript variants. The longer transcripts, also known as 'Cenexins', encode proteins with a C-terminal extension that are differentially targeted to somatic centrioles and thought to be crucial for the formation of microtubule organizing centers. [provided by RefSeq, Oct 2010]