

## Product datasheet for **RG226296**

### MOV10 (NM\_001130079) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MOV10 (NM_001130079) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MOV10
Synonyms:	fSAP113; gb110
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG226296 representing NM\_001130079  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCCAGTAAGTTCAGCTGCCGCAGCTCCGGAGGCGGCCAGTGTTTCGAGAGTTCCTGGTCGTTT  
 GGGGACTGGACATGGAGACAGATCGCGAGCGGCTGCGGACCATTTATAACCGCGACTTCAAGATCAGCTT  
 TGGGACCCCCGCCCTGGCTTCTCCTCCATGCTGTATGGAATGAAGATTGCAAACTGGCCACGTCACC  
 AAGACTCGGGTCAGGTTCTCAGACTCGACCGCTGGGCCGACGTGCGGTTCCAGAAAAGAGGAGAATGA  
 AGCTGGGGTCAGATATCAGCAAACACCACAAGTCACTGCTAGCCAAGATCTTTTATGACAGGGCTGAGTA  
 TCTTCATGGGAAACATGGTGTGGATGTGGAAGTCCAGGGGCCCATGAAGCCGAGATGGGCAGCTCCTT  
 ATCCGCTGGATTTGAACCGCAAAGAGGTGCTGACCTGAGGCTTCGGAATGGCGGAACCCAGTCTGTTA  
 CCCTCACTCACCTCTCCACTCTGCCGACACCCAGTTTGCTTCTACAATGAAGACCAGGAGTTGCC  
 CTGTCCACTGGGCCCGTGAATGCTATGAACTCCATGTCCATTGTAAGACCAGCTTTGTGGGCTACTTC  
 CCAGCCACAGTGTCTGGGAGCTGCTGGGACCTGGGGAGTCGGGTTCAGAAGGAGCCGGCACATTCTACA  
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 GCGGACCCGGATCACCGAAACCTGTGGTGACCAATCGGATAGAGGAAGGAGAGAGACCTGACCGCGCT  
 AAGGGCTATGACCTGGAGTTAAGTATGGCGCTGGGGACATACTACCCACCTCCCCGCTCAGGCAGCTGC  
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 GGAGACAGCCCTGAAGTGGAGAACTATGAGGTGAAGTGCAGGCTGCTGCTGCACCTGGAGGAACGCGAG  
 ATGGAGCATGATATCCGGCACTATGACCTGGAGTCGGTCCCATGACCTGGGACCTGTGGACCAGAACC  
 CCAGGCTGCTCAGCTGGAGGTTCTGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT  
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 AATTAAGCAGGTGGTGAAGCACTTGCCAAAGCCACATCTTGGCCTGCGCTCCATCCAACCTCAGGGGCT  
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 ACATCCGATGGTACCTGAGGACATCAAGCCCTGCTGAACTGGGACGCAAGAAGGGGGAGTATGTATT  
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 CAGTAGAAGAATTCCAAGGCAAGAACGAAGCGTCATCCTCATCTCCACCGTGCGAAGCAGCCAGAGCTT  
 TGTGCAGCTGGATCTGGACTTAACTCTGGGTTTCTTAAGAACCCTAAGAGGTTCAATGTAGCTGTGACC  
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 TCCTGGAGTTCTGTAAGAAAACGGAGGTATACCGGGTGTCCCTCCCTGCCAAACTGGACCTGCAACA  
 GGGACAGAATTTACTGCAAGGTCTGAGCAAGCTCAGCCCTCTACCTCAGGGCCCCACAGCCATGACTAC  
 CTCGCCAGGAGCGGGAGGGTGAAGGGGCTGTCTCTGCAAGTGGAGCCAGAGTGGAGGAATGAGCTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >RG226296 representing NM\_001130079  
 Red=Cloning site Green=Tags(s)

MPSKFSRQLREAGQCFESFLVVRGLDMETDRERLRTIYNRDFKISFGTPAPGFSSMLYGMKIANLAYVT  
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 IRLDLNRKEVLTLLRNRGGTQSVTLTHLFPLCRTPQFAFYNEQELPCPLGPGECYELHVHCKTSFVGYF  
 PATVWELLGPGESGSEGAGTFYIARFLAAVAHSPLAAQLKPMTPFKRTRITGNPVVVTNRIEEGERPDRA  
 KGYDLELSMALGTYYPPRLRQLLPMLLQGTSIF TAPKEIAEIKAQLETKWRNYEVKLRLLHLLEELQ  
 MEHDIRHYDLESVPMTWDPVDQNPRLLTLEVPGVTESRPSVLRGDHLLFALLSSETHQEDPITYKGFVHKV  
 ELDRVKLSFSMSLLSRFVDGLTFKVNFTFNRPQPLRVQHRALELTGRWLLWPMLFPVAPRDVPLPSDVKL  
 KLYDRSLESNPEQLQAMRHIVTGTTRPAPYIIFGPPGTGKTVTLVEAIKQVVKHLPKAHILACAPSNSGA  
 DLLCQRLRVHLPSSYRLLAPSRDIRMVPEDIKPCCNWDAKKGEYVFPKAKKLQEYRVLITTLITAGRLV  
 SAQFPIDHFTHFIDEAGHCMEPESLVAIAGLMEVKETGDPGGQLVLAGDPRQLGPVLSPLTQKHGLGY  
 SLLERLLTYNSLYKKGPDGYDPOFITKLLRNYRSHPTILDIPNQLYYEGELQACADVDRERFCRWAGLP  
 RQGFPIIFHGMKDEREGNSPFFNPEEAATVTSYLKLLAPSSKKGKARLSPRSVGVISPYRKQVEKI  
 RYCITKLDRELRGLDDIKDLKGVSVVEEFGQERSVILISTVRSQSFVQLDLDFNLGFLKNPKRFNVAVT  
 RAKALLIIVGNPLLLGHDPDWKVFLEFCKENGGYTGCFFPAKLDLQGGQNLQLGLSKLSPSTSGPHSHDY  
 LPQEREGGLSLQVEPEWRNEL

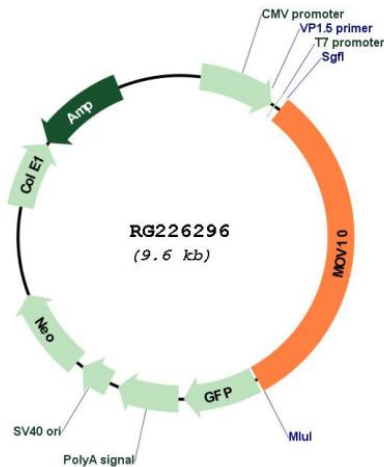
TRTRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001130079

**ORF Size:** 3009 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\\_001130079.2](#), [NP\\_001123551.1](#)

**RefSeq Size:** 3538 bp

**RefSeq ORF:** 3012 bp

**Locus ID:** 4343

**UniProt ID:** [Q9HCE1](#)

**Cytogenetics:** 1p13.2

**Gene Summary:**

5' to 3' RNA helicase contributing to UPF1 mRNA target degradation by translocation along 3' UTRs (PubMed:24726324). Required for microRNA (miRNA)-mediated gene silencing by the RNA-induced silencing complex (RISC). Required for both miRNA-mediated translational repression and miRNA-mediated cleavage of complementary mRNAs by RISC (PubMed:16289642, PubMed:17507929, PubMed:22791714). In cooperation with FMR1, regulates miRNA-mediated translational repression by AGO2 (PubMed:25464849). Restricts retrotransposition of long interspersed element-1 (LINE-1) in cooperation with TUT4 and TUT7 counteracting the RNA chaperone activity of L1RE1 (PubMed:30122351, PubMed:23093941). Facilitates LINE-1 uridylation by TUT4 and TUT7 (PubMed:30122351). Required for embryonic viability and for normal central nervous system development and function. Plays two critical roles in early brain development: suppresses retroelements in the nucleus by directly inhibiting cDNA synthesis, while regulates cytoskeletal mRNAs to influence neurite outgrowth in the cytosol (By similarity). May function as a messenger ribonucleoprotein (mRNP) clearance factor (PubMed:24726324).[UniProtKB/Swiss-Prot Function]