

## Product datasheet for **RG224927**

### CMG1 (IFT74) (NM\_001099224) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CMG1 (IFT74) (NM_001099224) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IFT74
Synonyms:	CCDC2; CMG-1; CMG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG224927 representing NM_001099224 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGCAATCACAAATCTTCAGCAGCTCGCCCTGTTTCAAGAGGTGGAGTTGGGTTAACAGGAAGGC  
CTCCTTCTGGGATACGACCCCTATCAGGAAATATTCGAGTGGCAACTGCAATGCCACCTGGGACAGCAAG  
ACCAGTTCTCGTGGTTGCCATAGGGACTGGTGGAGTTCTGTCTTCTCAAATCAAAGTTGCCCATCGC  
CCTGTAACACAACAAGGTTTACTGGAATGAAACTGGGACGAAAGTCCCGAGAGGCAAAATTTAGACA  
AATCTTACTATCTGGGCTTCTTAGAAGTAAAATAAGTGAACCTACAACGAAGTTAATAAACTTCAGAA  
GGGAATAGAAATGTACAATCAAGAGAATTCAGTATATTTGTCATATGAAAAGAGGGCTGAGACTTTAGCT  
GTTGAGATAAAAGAGCTTCAAGGACAACACTAGCAGACTACAACATGTTGGTAGATAAACTTAATACCAACA  
CTGAAATGGAAGAAGTAATGAATGATTACAATATGCTTAAAGCTCAAAATGATCGAGAAACACAAAGTTT  
GGATGTCATATTTACTGAAAGACAAGCGAAAGAAAAACAAATCAGAAAGTGTGCAAGAAAGAAATGAAACAG  
GAAAAACAAGCAACAGATGACATTATCAAAAATATGCTTTTTGAAAACCAAGTCAAGTACCTAGAGATGA  
AAACCACAAATGAGAACTGTTACAGGAATTAGATACACTTCAACAACAATTGGATTACAGAACATGAA  
AAAAGAGAGCCTGGAAGCAGAAATAGCTCACTCCAGGTGAAACAGGAGGCGGTATTGCTGCATGAAAA  
CTTTATGAGTTGGAGTCCCATCGAGATCAAATGATTGCAGAAGACAAAAGCATAGGATCTCCAATGGAAG  
AGAGAGAGAAATTAAGCAGATTAAGATGATAATCAGGAAATAGCCAGCATGGAAAGACAGTTAAC  
AGATACAAAAGAAAAGATAAATCAGTTTATTGAAGAAATTAGACAACCTGACATGGATTTAGAGGAACAC  
CAAGATCTACCAACTATGGATGAAAAAATACTGAAAAAATACAGGAAGTTTCAAAAAGCAAGTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG224927 representing NM\_001099224  
 Red=Cloning site Green=Tags(s)

MASNHKSSAARPVSRGGVGLTGRPPSGIRPLSGNIRVATAMPPGTARPGSRGCPIGTGGVLSSQIKVAHR  
 PVTQQGLTGMKTGTKPQRQILDKSYLLGRLRSKISELTTEVNKLQKGIEMYNQENSVYLSYEKRAETLA  
 VEIKELQGLADYNMLVDKLNNTMEMEVMNDYNMLKAQNDRETQSLDVIFFTERQAQEKQIRSVEEIEIQ  
 EKQATDDIKNMSFENQVKYLEMKTITNEKLLQELDTLQQQLDSQNMKESLEAEIAHSQVKQEAVLLHEK  
 LYELESHRDQMI AEDKSI GSPMEEREKLLKQIKDDNQEI ASMERQLTDTKEKINQFIEEIRQLDMDLEE  
 QDPTNYGWKILEKNTGSFKKQV

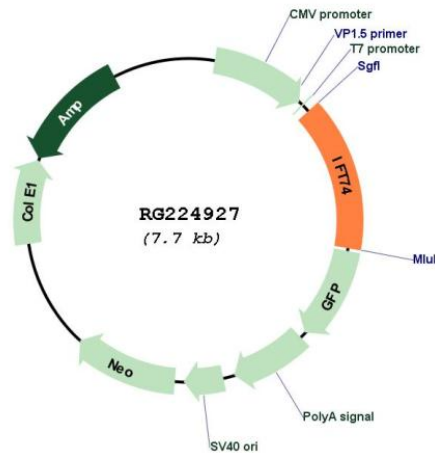
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001099224

<b>ORF Size:</b>	1116 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_001099224.2</a>
<b>RefSeq Size:</b>	1571 bp
<b>RefSeq ORF:</b>	1119 bp
<b>Locus ID:</b>	80173
<b>UniProt ID:</b>	<a href="#">Q96LB3</a>
<b>Cytogenetics:</b>	9p21.2
<b>Gene Summary:</b>	This gene encodes a core intraflagellar transport (IFT) protein which belongs to a multi-protein complex involved in the transport of ciliary proteins along axonemal microtubules. IFT proteins are found at the base of the cilium as well as inside the cilium, where they assemble into long arrays between the ciliary base and tip. This protein, together with intraflagellar transport protein 81, binds and transports tubulin within cilia and is required for ciliogenesis. Naturally occurring mutations in this gene are associated with amyotrophic lateral sclerosis--frontotemporal dementia and Bardet-Biedl Syndrome. [provided by RefSeq, Mar 2017]