

Product datasheet for **RC212777**

CMG1 (IFT74) (NM_001099222) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CMG1 (IFT74) (NM_001099222) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CMG1
Synonyms:	CCDC2; CMG-1; CMG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC212777 representing NM_001099222
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCAGCAATCACAAATCTTCAGCAGCTCGCCCTGTTCAAGAGGTGGAGTTGGTTAACAGGAAGGC
 CTCCTTCTGGGATACGACCCCTATCAGGAAATATTCGAGTGGCAACTGCAATGCCACCTGGGACAGCAAG
 ACCAGGTTCTCGTGGTTGTCCCATAGGGACTGGTGGAGTTCTGTCTTCTCAAATCAAAGTTGCCATCGC
 CCTGTAACACAACAAGGTTTACTGGAATGAAACTGGGACGAAAGGTCCCCAGAGGCAAATTTTAGACA
 AATCTTACTATCTGGGCTTCTTAGAAGTAAAATAAGTGAACCTACAACCTGAAGTTAATAAACTTCAGAA
 GGGAAATAGAAATGTACAATCAAGAGAATTCAGTATATTTGTCATATGAAAAGAGGGCTGAGACTTTAGCT
 GTTGAGATAAAAGAGCTTCAAGGACAACAGCAGACTACAACATGTTGGTAGATAAACTTAATACCAACA
 CTGAAATGGAAGAAGTAATGAATGATTACAATATGCTTAAAGCTCAAAATGATCGAGAAACAAAGTTT
 GGATGTCAATTTACTGAAAGACAAGCGAAAGAAAACAATCAGAAGTGTGGAAGAAGAAATGAACAG
 GAAAAACAAGCAACAGATGACATTATCAAAAATATGCTTTTTGAAAACCAAGTCAAGTACCTAGAGATGA
 AAACCACAAATGAGAACTGTTACAGGAATTAGATACACTTCAACAACAATTGGATTACAGAAACATGAA
 AAAAGAGAGCCTGGAAGCAGAAATAGCTCACTCCAGGTGAAACAGGAGGCGGTATTGCTGCATGAAAA
 CTTTATGAGTTGGAGTCCCATCGAGATCAAATGATTGCAGAAGACAAAAGCATAGGATCTCCAATGGAA
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 CAAGGTGAAATGAACAGAAATACAAGGAGCTAAAGAAAAGGAGGAACATATGGACACTTTTATTGAGA
 CTTTTGAGGAAACAAGAATCAGGAACGAAACGAAAGGCACAGATAGAAGCCAACATTTGTCACCTTT
 GGAGCACTGCAGTCGAAATATAAATCGTATAGAACAGATATCCTCTATCACCATCAAGAGCTAAAGATG
 ATGCAGGATGACCTCAATTTTAAATCTACTGAAGTGCAGAAATCACAAGTACAGCTCAGAAATTTGACTT
 CAGACATTCACCTGCTGCAGTTGGATCTGCAGAAATGGAGCTTCTAGAAAGTAAGATGACTGAAGAACA
 GCATTCTCTAAAAAGCAAATTAAGCAAATGACAACCTGATCTGGAGATATAAATGATTTGCCAGCTTTA
 AAATCATCAGGTGAAGAAAAGATAAAGAAATTACATCAGGAGAGAATGATATTATCAACCCACAGAAATG
 CCTTTAAGAAAATAATGGAGAAGCAAACATAGAGTATGAGGCACTAAAAACACAATTGCAAGAAAATGA
 GACACATTTCTCAGCTTACAAATTTGGAGAGAAAGTGGCAACACCTTGAGCAAAATAATTTTGCATGAAA
 GAATTCATAGCAACCAAGAGTCAAGAGAGTATTACCAGCAATTAAGAAAATGTGACCAAGCAGATTG
 CAGAGTACAATAAAACCATCGTGGATGCTTACATAGCACCAGCGGAAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212777 representing NM_001099222
 Red=Cloning site Green=Tags(s)

MASNHKSSAARPVSRGGVLTGRPPSGIRPLSGNIRVATAMPPGTARPGSRGCPIGTGGVLSQIKVAHR
 PVTQQGLTGMKTGKGPQRQILDKSYLLGLLRSKISELTTEVNKLQKGIEMYNQENSIVLSYKRAETLA
 VEIKELQQLADYNMLVDKLNNTMEMEVMNDYNMLKAQNDRETQSLDVIFTERQAKEKQIRSVVEEIEQ
 EKQATDDIKNMSFENQVKYLEMKTITNEKLLQELDTLQQQLDSQNMKESLEAEIAHSQVKQEAIVLHEK
 LYELESHRDMIAEDKSIGSPMEEREKLLKQIKDDNQEIASMERQLTDTKEKINQFIEEIRQLDMDLEEH
 QGEMNQYKELKKREEHMDTFIETFEETKNQELKRKAQIEANIVALLEHCSRINRIEQISSITNQELKM
 MQDDLNFKSTEVQKSQSTAQNLTSDIQRLQLDLQKMELLESKMTEEQHSLKSKIKQMTTDLIEIYNDLPAL
 KSSGEEKIKKLHQERMILSTHRNAFKKIMEKQNIYEALKTQLQENETHSQLTNLERKWQHLEQNPFAMK
 EFIATKSQESDYQPIKKNVTKQIAEYNTIIVDALHSTSGN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8022_h04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001099222

ORF Size: 1800 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_001099222.2](#)

RefSeq Size: 2183 bp

RefSeq ORF: 1803 bp

Locus ID: 80173

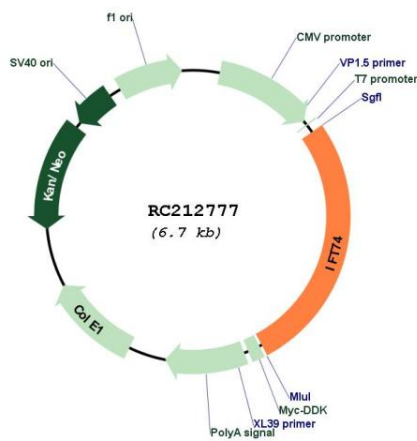
UniProt ID: [Q96LB3](#)

Cytogenetics: 9p21.2

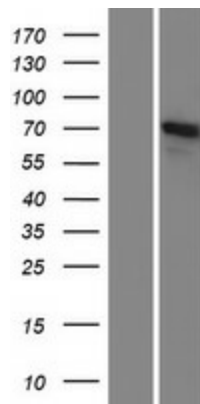
MW: 69.1 kDa

Gene Summary: 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]

Product images:



Circular map for RC212777



Western blot validation of overexpression lysate (Cat# [LY420372]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212777 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).