

Product datasheet for **RG216490**

IQCG (NM_032263) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	IQCG
Synonyms:	CFAP122; DRC9
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG216490 representing NM_032263
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGAAGAAGACAGCCTGGAAGACTCAAACCTTCTCCAAAAGTTTGGCATTCTGAGATGACGGTGTCAG
TGACAGGCGAACCACTAGTACCGTAGAAGAAGAAGGAATACCTAAAGAAACAGACATAGAAATCATCCC
AGAAATCCCGAACTCTAGAGCCACTGTCCCTTCCAGATGTGCTGAGGATCTCGGCAGTTCTGGAGGAC
ACCACAGACCAGCTCTCTATTCTGAACATCATGCCCCGTTTCAGTACGAAGGGAGACAGAGCATCTGCG
TGAAAAGCAGAGAAATGAATCTAGAAGGAACGAATCTAGACAACTTCCAATGGCCTCAACAATCAGAAA
AATACCCAGTCCGTTAATAACTGAGGAAGGACCAACTTGCCAGAAATCAGACACAGAGGCCGGTTTCGCT
GTGGAGTTTAACAAAATGCAGGATCTTGTCTTCAAAAAACCTACAAGGCAGACCATCATGACTACGGAGA
CACTGAAGAAAATTCAGATTGATAGGCAGTTTTTCAGCGATGTGATTGCAGATACCATTAAGGAGTTGCA
AGATTCGGCCACTTACAACAGTCTCCTGCAAGCTTTGAGCAAAGAGAGGGAAAAACAAATGCATTTCTAT
GACATCATTGCCAGGGAGGAAAAAGGAAGAAAACAGATAATATCACTTCAAAAACAGCTAATTAATGTCA
AAAAGGAATGGCAATTTGAAGTCCAGAGTCAGAATGAGTATATTGCTAACCTCAAGGACCAACTGCAAGA
GATGAAGGCAAAATCCAACCTTGGAGAATCGCTACATGAAAACCAATACCGAGCTGCAGATTGCCAGACC
CAGAAAAAGTGTAACAGAACAGAGGAACCTTGGTGGGAAGAGATTGAGAACTCAGGATGAAAACCGAAG
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GGAGTTCTGGATGGAGAAATACGATAAGGACACAGAAATGAAACAGAAATGAACTAAATGCTCTCAAAGCC
ACAAAGGCCAGTGACTTAGCACACCTTCAAGACCTGGCAAAGATGATAAGAGAGTATGAACAGGTATCA
TTGAAGATCGTATAGAAAAGGAGAGGAGCAAGAAGAAGGTAAACAGGATCTCTTGGAAATTAAGAGCGT
TATAAAGCTCCAGGCCTGGTGGCGAGGCACTATGATACGGAGAGAAATTGGTGGTTTCAAGATGCCTAAA
GACAAAGTTGATAGCAAGGATTCAAAAGGCAAGGTAAAGGCAAGGATAAGAGGAGAGGCAAGAAGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



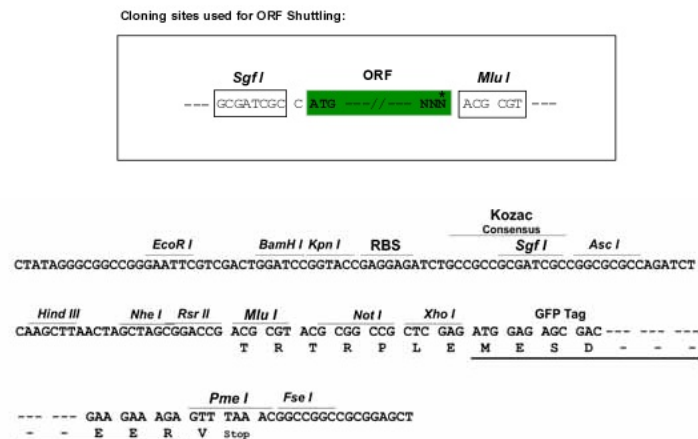
Protein Sequence: >RG216490 representing NM_032263
Red=Cloning site Green=Tags(s)

MEEDSLEDNLPPKVWHSEMTVSVTGEPSTVEEEGIPKETDIEIIPETLEPLSLPDVLRISAVLED
TTDQLSILNYIMPVQYEGRQSIQVKSREMNLGTNLDKLPMASTITKIPSPLITEEGPNLPEIRHRGRFA
VEFNKMQDLVFKKPTRQTIMTTETLKKIQIDRQFFSDVIADTIKELQDSATYNSLLQALSKERENKMHFY
DIIAREEKGRKQIISLQKQLINVKKEWQFEVQSQNEYIANLKDQLQEMKAKSNLENRYMKTNTLQIAQT
QKKCNRTTEELLVEEIEKLRMKTEEEARTHTEIEMFLRKEQQKLEERLEFWMEKYDKDTEMKQNELNALKA
TKASDLAHLQDLAKMIREYEQVIEDRIEKERSKKKVKQDLELKSIVIKLQAWWRGTMIRREIGGFKMPK
DKVDSKDSKGGKGGKDKRRGKKK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_032263

ORF Size: 1329 bp

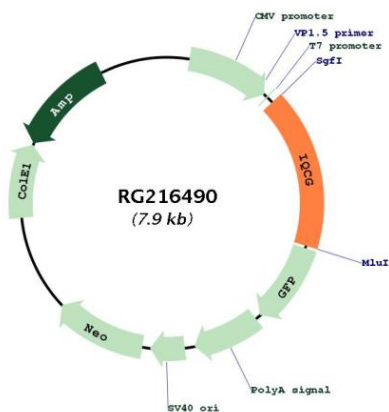
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<u>NM_032263.5</u>
RefSeq Size:	2291 bp
RefSeq ORF:	1332 bp
Locus ID:	84223
UniProt ID:	<u>Q9H095</u>
Cytogenetics:	3q29
Domains:	IQ
Gene Summary:	Component of the nexin-dynein regulatory complex (N-DRC), a key regulator of ciliary/flagellar motility which maintains the alignment and integrity of the distal axoneme and regulates microtubule sliding in motile axonemes. Binds calmodulin when cellular Ca(2+) levels are low and thereby contributes to the regulation of calcium and calmodulin-dependent protein kinase IV (CAMK4) activity; contributes to the regulation of CAMK4 signaling cascades. Required for normal axoneme assembly in sperm flagella, normal sperm tail formation and for male fertility.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG216490