

## Product datasheet for **RG203357**

### CIAO2A (NM\_032231) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Tag:** TurboGFP  
**Symbol:** CIAO2A  
**Synonyms:** CIA2A; FAM96A  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**ORF Nucleotide Sequence:** >RG203357 representing NM\_032231  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCAGCGGGTGTCCGGCTGCTCTCTGGACGCTGAGCAGAGTCCTGTGGCTCTCCGGCCTCTCTGAGC  
CGGGAGCTGCCCGGCAGCCCCGGATCATGGAAGAGAAAGCGCTAGAGGTTTATGATTGATTAGAACTAT  
CCGGGACCCAGAAAAGCCCACTTTAGAAGAACTGGAAGTGGTCTCGGAAAGTTGTGTGGAAGTTCAG  
GAGATAAATGAAGAAGAATATCTGGTTATTATCAGGTTACGCCAACAGTACCTCATTGCTCTTTGGCGA  
CTCTTATTGGGCTGTGCTTAAGAGTAAACTTCAGCGATGTTTACCATTAAACATAAGTTGGAAATCTA  
CATTTCTGAAGGAACCCACTCAACAGAAGAAGACATCAATAAGCAGATAAATGACAAAAGAGCGAGTGGCA  
GCTGCAATGGAACCCCACTTACGGGAAATTGTGGAACAGTGTGCTTGAACCTGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG203357 representing NM\_032231  
Red=Cloning site Green=Tags(s)

MQRVSGLLSWTL SRVLWLSGLSEPGAARQPRIMEEKALEVYDLIRTIRDPEKPNTLEELEVSVSESCVEVQ  
EINEEYLVIIIRFTPTVPHCSLATLIGLCRLVKLQRCLEPKHKLIIYISEGTHSTEEDINKQINDKERVA  
AAMENPNLREIVEQCVPLEPD

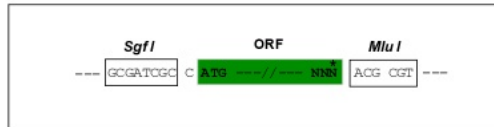
TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI



## Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI  
 CTATAGGGCGGCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGATCGCCGGCGCCAGATCT  
 HindIII NheI RsrII MluI NotI XhoI GFP Tag  
 CAAGCTTAAGTACTAGTAGCGGACG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC ---  
 T R T R P L E M E S D - - -  
 --- GAA GAA AGA GTT TAA ACGCCGGCCGCGGAGCT  
 - - E E R V Stop

**ACCN:** NM\_032231

**ORF Size:** 480 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:** [NM\\_032231.3](#)

RefSeq Size: 1108 bp  
RefSeq ORF: 483 bp  
Locus ID: 84191

UniProt ID: [Q9H5X1](#)  
Cytogenetics: 15q22.31  
Domains: DUF59

**Gene Summary:** Component of the cytosolic iron-sulfur protein assembly (CIA) complex, a multiprotein complex that mediates the incorporation of iron-sulfur cluster into extramitochondrial Fe/S proteins (PubMed:23891004). As a CIA complex component and in collaboration with CIAO1 specifically matures ACO1 and stabilizes IREB2, connecting cytosolic iron-sulfur protein maturation with cellular iron regulation (PubMed:23891004). May play a role in chromosome segregation through establishment of sister chromatid cohesion. May induce apoptosis in collaboration with APAF1 (PubMed:25716227).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for RG203357