

## Product datasheet for **RC227812**

### COG2 (NM\_001145036) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	COG2 (NM_001145036) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	COG2
Synonyms:	CDG2Q; LDLC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC227812 representing NM\_001145036  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGAAAAGTAGGATGAACCTGCCAAGGGGCCGGACACGCTCTGCTTCGACAAGGACGAGTTTCATGA  
 AGGAAGATTTTCGATGTCGATCATTGTTGTCTGACTGTAGGAAGCGGGTCCAGCTGGAAGAACTGAGAGA  
 TGACCTGGAGCTCTACTATAAACTTCTTAAAAACAGCCATGGTCAACTCATCAACAAGGATTATGCAGAT  
 TTTGTCAATCTTTCAACAACTTGGTTGGCATGGACAAAGCCCTCAACCAGCTTTCTGTGCCTTTGGGAC  
 AATTACGAGAAGAGGTTCTGAGCCTTAGATCGTCTGTCAGTGAAGGAATTCGGGCAGTTGATGAACGAAT  
 GTCTAAACAAGAGGACATTAGGAAAAAAAAGATGTGTGATTGAGGCTTATACAAGTTATTCGGTCAAGT  
 GAGAAAATTGAAAAATCTAACTCTCAAAGTCTAAAGAACTCTGCACTAGAAGCAAGCAGCCCCC  
 TTTTGACTGGACAAATTTGGAGAGAATTGCCACAGAATTAATCAGTTACAGTTTCATGCTGTTCAAAG  
 CAAAGGCATGCCTCTTTGGACAAAGTAAGACCGCGTATAGCTGGCATTACAGCCATGTTACAGCAGTCA  
 CTGGAAGGTCTCCTATTAGAAGGCCCTCAGACGCTGACGTCGATATAATACGGCACTGCTTGGCGACTT  
 ACGCCACGATTGACAAGACACGGGACGCGGAGGCTTAGTTGGCCAAGTACTAGTGAAACCATACATAGA  
 CGAGGTGATTATAGAGCAGTTTGTGTAATCTATCCCAATGGCCTTCAGGTGATGATAATAAACTCCTG  
 GAGTTTGTTCCTCACCATTGCCGCTTCTTCGAGAAGTACAGGAGGTGCCATCTCCAGTGAAAAAGGCA  
 ATACTGTTCTGGATATGACTTTTTGGTGAATCTGTTTGGCCACAAATAGTACAAGGATTAGAAGAAAA  
 GTTACCCTCGCTTTTAACTCCTGGGAATCCCGATGCATTTTCATGAGAAAATACCATAAAGTATGGATTTT  
 GTCAGAAGATTGGAACGGCAGTGTGGATCACAGGCTAGTGTAAAGAGATTAAGAGCCCATCCTGCCTATC  
 AGAAGCAGCACTTACAGATGTCCTGGAAGATGCCCCAGCTGAAAAGTCCGTATTGCCTTTTGGCTTCTCAT  
 AGAACTTGGAGCAGCCTTAGGAGGTGTTGGTCAAGTATGAGATGTTCTTGGCATTACTGGTGCATCGCTGT  
 GGAGACTCACTCTGCAGATTTTGGCACGATACTCTGTGTTTGTCAATGAGCTTTCACTCAGGCCATTTTC  
 TAATGAAAGTCCCAAGGAGATCAAGAACTTTGGTAACTGGTAGCAAAGAACCTTCCATCACCCAAGGA  
 AACACTGAAGACCAAGGAAGTGGTCTTCGAAACAAAGCCTGTGGTTTCCATTTCCCGCACTCAGCTCG  
 TGTATGTGGTTGCAGACCTGGACAAGCTTCAGGAGCAGCTTCAGAACTTTGGAATAATCAAGCCAAA  
 ACTTGAATGATTGGCTTTAAGAATTTTCTTCTATCTCAGCCCTGGAGGACTCCAGAGCTCTTTTCA  
 GCCTGTGTGCCCTCCTTGTAGTCAAGATCATCCAGGATTTAAGTACTCTTGTTCGGTTTCTAAAAA  
 GCGCCCTGGAGGTTCCAGGCTTTACCGAAGAACAATAAGGAGGTCCCAACCACAGCTTCTCCTATGT  
 GGACAGTGCTCTGAAGCCCTTATCCAGCTTCAGAGCGGACACAAGGATAAGCTCAAACAAGCAATAATT  
 CAGCAGTGGCTAGAAGGCACTCTCAGTGAAGCACTCATAAGTACTATGAAACCGTGTGAGATGATTAA  
 ACTCTGTGAAGAAGATGGAAGAGAGCCTGAAAAGGCTGAAAACAAGCCAGAAAAACCACTCCCGCAACCC  
 CGTCGGTCCCAGTGGTGGCATGAGCGACGACGACAAAAATCAGGCTGCAGTTGGCCCTAGATGTTGAGTAC  
 TTGGGAGAGCAGATACAAAAGTTGGGACTACAAGCAAGTGACATAAAAAGCTTCTCAGCTCTCGCAGAGC  
 TTGTTGCTGCTGCCAAGGACCAGGCAACAGCAGAGCAGCCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC227812 representing NM\_001145036  
Red=Cloning site Green=Tags(s)

```
MEKSRMNLPKGPDTLCFDKDEFMKEDFDVDHFVSDCRKRVQLEELRDDLELYYKLLKTAMVELINKDYAD
FVNLSNVLGMDKALNQLSVPLGQLREEVLSLRSSVSEGIRAVDERMSKQEDIRKKKMCVLRLIQVIRSV
EKIEKILNSQSSKETSALAEASSPLL TGQILERIAIEFNLQFHAVQSKGMPLLDKVRPRIAGITAMLQSS
LEGLLEGLQTSVDVDIRHCLRITYATIDKTRDAEALVGQVLVKPYIDEVIEIQFVESHPLNGLVMYNKKLL
EFVPHHCRLRLREVTGGAISSEKGNTPGYDFLVNSVWPQIVQGLEEKLP SLFNPGNPDAFHEKYTISMDF
VRRLERQCGSQASVKRLRAHPAYHSFNKKWNLPVYFQIRFREIAGSLEAALTDVLEDAPAESPYCLLASH
RTWSSLRRCWSDMFLPLL VHLRWRLLTLQILARYSVFVNELSLRPI SNESPKI KPLVTGSKEPSITQG
NTEDQGGSPSETKPVVSI SRTQLVYVVADL DKLQEQLELLEI IKPKLEMIGFKNFSSISALEDSSQSSFS
ACVPSLSSKIIQDLSDSCFGLKSALEVPRL YRRTNKEVPTTASSYVDSALKPLFQLQSGHKDKLKQAI I
QQWLEGLTSESTHKYYETVSDVLNSVKKMEESL KRLKQARKTTPANPVGPSGGMSDDDKIRLQLALDVEY
LGEQIQKLG LQASDIKSF SALAELVAAAKDQATAEQP
```

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001145036

**ORF Size:** 2211 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\\_001145036.2](#)

**RefSeq Size:** 2974 bp

**RefSeq ORF:** 2214 bp

**Locus ID:** 22796

**UniProt ID:** [Q14746](#)

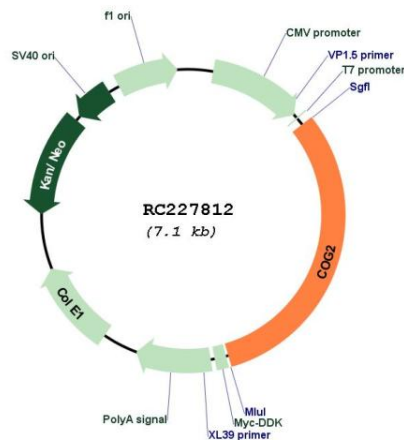
**Cytogenetics:** 1q42.2

**Protein Families:** Druggable Genome

**MW:** 83.1 kDa

**Gene Summary:** This gene encodes a subunit of the conserved oligomeric Golgi complex that is required for maintaining normal structure and activity of the Golgi complex. The encoded protein specifically interacts with the USO1 vesicle docking protein and may be necessary for normal Golgi ribbon formation and trafficking of Golgi enzymes. Mutations of this gene are associated with abnormal glycosylation within the Golgi apparatus. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Feb 2009]

### Product images:



Circular map for RC227812