

Product datasheet for **RC223372**

COPG2 (NM_012133) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	COPG2 (NM_012133) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	COPG2
Synonyms:	2-COP; gamma-2-COP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC223372 representing NM_012133
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGATTAATAAATTCGACAAGAAGGACGAGGAGTCTGGTGTGGCTCCAATCCTTTCCAGCATCTGGAGA
 AGAGTGTGTTTTACAGGAGGCTCGTATATTCAATGAAACTCCAATCAATCCAAGAAGATGTTTGCATAT
 TCTTACAAGATTCTTTACTTACTGAACCAAGGTGAACACTTTGGAACAACGGAAGCTACAGAAGCCTTC
 TTTGCAATGACGCGATTGTTCAATCTAATGATCAAACATTGAGGAGAATGTGCTACCTTACCATCAAAG
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 GAAAGATACATGAAGCAGGCCATTGTGGATAAAGTTTCCAGTGTATCCAGTTCAGCACTGGTATCTTCCC
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 TGATAATATTATGGTCCAGTACCATGCATTGGGAGTCTGTATCACCTTAGAAAGATGATCGACTTGCT
 GTTCCAAGATGTTGAATAAGTTTACTAAATCTGGTCTCAAGTCACAGTTTGCTTACTGCATGCTGATCC
 GAATTGCCAGTCGCTTACTAAAAGAAACTGAGGATGGCCATGAAAGTCCACTGTTTGATTTCATTGAGAG
 CTGCTTGGCAAATAAACATGAAATGGTTATTTATGAAGCTGCTTCAGCTATCATCCATCTTCTAACTGC
 ACTGCAAGAGAGTTGGCACCTGCTGTTTCAGTTCTTCACTTTTCTGTAGTTCTCCTAAGCCAGCCTTGA
 GATATGCAGCTGTGAGGACCTTGAACAAGGTGGCAATGAAGCACCCCTCTGCTGTACTGCCTGCAATCT
 GGACTTAGAAACTTAATCACAGACTCAAACAGAAGCATTGCTACCTTAGCCATTACTACACTCCTCAAA
 ACAGGAAGTGAGAGCAGTGTGGACCGCTCATGAAGCAGATATCTTTTTGTGTCTGAAATCTCAGATG
 AGTTCAAGGTGGTGGTTGTACAGGCAATTAGTCTCTCTGTGCAAAATACCCTCGAAAGCACAGTGCAT
 GATGACTTTCCTCTCCAACATGCTCCGAGATGATGGAGGCTTTGAGTACAAGCGGCCATTGTGGACTGT
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 AGGACTGTGAACACACTGTTCTGGCTACTAAGATTCTACACTTGTGGGCAAAGAGGGCCCTAGAACGCC
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 CTCTGTCTTTGAACAGAAAGCAGAAATCACACTTGTGGCTACTAAGCCAGAGAAGTTGGCTCCTCCAG
 GCAAGACATTTTCCAAGAACAATTGGCTGCCATTCCTGAGTTTCTGAATATAGGACCCTTGTCAAGTCT
 TCTGAGCCTGTTCAACTACAGAAGCAGAGACAGAATATTTTGTTCGATGTATCAAGCACATGTTTACCA
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 CCATGAAGTTTACAGTCCGGGACTGTGACCCTAACACTGGAGTTCCAGATGAGGATGGGTATGATGATGA
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 GCTGCTTGGGAAGAGGTGGGAGATACCTTTGAGAAAGAGGAAACCTTTGCCCTCAGTTCTACAAAACCC
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 TGAGAACAAGAATTCCTATTCGCTCTATCTGGCAGGTATATTCAGAGGTGGCTATGATTTATTGGTGAGG
 TCCAGGCTGGCCTTAGCCGATGGAGTGACCATGCAGGTGACTGTCAGAAGTAAAGAGAGAACACCTGTAG
 ATGTTATCTTAGCTTCTGTTGGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC223372 representing NM_012133
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MIKKFDKKDEESGSGSNPFQHLEKSAVLQEARIFNETPINPRCLHILTKILYLLNQGEHFGTTEATEAF
 FAMTRLFQSDQTLRRMICYLTIKEMATISEDVIVTSSLTKDMTGKEDVYRGPALRALCRITDGTMLQAI
 ERYMKQAIVDKVS SVSSALVSSLHMMKISYDVKRWINEAQEAASSDNIMVQYHALGVL YHLRKNDRLA
 VSKMLNKFTKSGLKSQFAYCMLIRIASRLLKETEDGHESPLDFIESCLRKNKHEMVIYEASAI IHL PNC
 TARELAPAVSVLQLFCSSPKPALRYAAVRTLNKVAMKHPSAVTACNL DLENLITDSNRSIATLAITLLK
 TGSESSVDRLMKQISSFVSEISDEFKVVVVQAI SALSALCQKYPRKHSVMFTLSNMLRDDGGFEYKRAIVDC
 IISIVEENPESKEAGLAHLCEFIEDCEHTVLATKILHLLGKEGPRTPVPSKYIRFIFNRVLENEAVRAA
 AVSALAKFGAQNESLLPSILVLLQRCMMDDDEVDRDRTFYLNVLQQRQMALNATYIFNGLTVSVPGMEK
 ALHQYTLEPSEKPFDMKSIPLAMAPVFEQKAEITLVATKPEKLAPSRQDIFQEQLAAIPEFLNIGPLFKS
 SEPVQLTEAETEYFVRCIKHMF TNHIVFQFDCNTLNDQLLEKVTVMPEPDSYEVLSVIPAPSLPYNQP
 GICYTLVRLPDDPTAVAGSF SCKMFTVRDCDPNTGVPDEDGYDDEYVLEDLETVSDHIQVKLKPNA
 AAWEEVGDTFEKEETFALSSTKTLEEAVNNIITFLGMQPCERSDKVPENKNSHSLYLAGIFRGGYDLLVR
 SRLALADGVTMQVTVRSKERTPVDVILASVG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8047_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



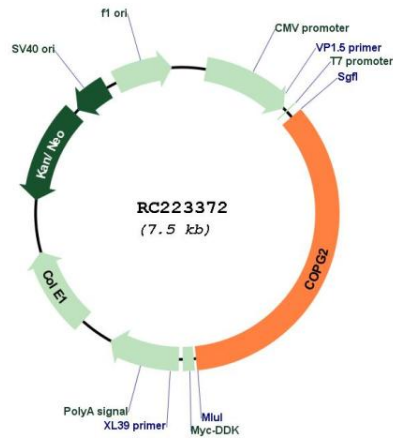
* The last codon before the Stop codon of the ORF

ACCN:	NM_012133
ORF Size:	2613 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_012133.6
RefSeq Size:	3143 bp
RefSeq ORF:	2616 bp
Locus ID:	26958
UniProt ID:	Q9UBF2
Cytogenetics:	7q32.2
Domains:	Adaptin_N
MW:	97.4 kDa

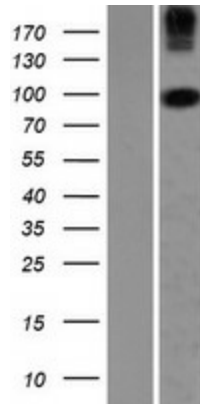
Gene Summary:

The coatamer is a cytosolic protein complex that binds to dilysine motifs and reversibly associates with Golgi non-clathrin-coated vesicles, which further mediate biosynthetic protein transport from the ER, via the Golgi up to the trans Golgi network. Coatamer complex is required for budding from Golgi membranes, and is essential for the retrograde Golgi-to-ER transport of dilysine-tagged proteins. In mammals, the coatamer can only be recruited by membranes associated to ADP-ribosylation factors (ARFs), which are small GTP-binding proteins; the complex also influences the Golgi structural integrity, as well as the processing, activity, and endocytic recycling of LDL receptors (By similarity).[UniProtKB/Swiss-Prot Function]

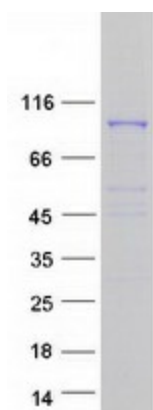
Product images:



Circular map for RC223372



Western blot validation of overexpression lysate (Cat# [LY415959]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223372 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified COPG2 protein (Cat# [TP323372]). The protein was produced from HEK293T cells transfected with COPG2 cDNA clone (Cat# RC223372) using MegaTran 2.0 (Cat# [TT210002]).