

Product datasheet for RC218368

GUCY2D (NM_000180) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GUCY2D (NM_000180) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GUCY2D
Synonyms:	CACD1; CG-E; CORD5; CORD6; CSNB1I; CYGD; GUC1A4; GUC2D; LCA; LCA1; RCD2; retGC; RETGC-1; ROS-GC1; ROSGC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218368 representing NM_000180 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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GCTCGCCCGACCTGGCCGCCGCTGGCCGCCCGCCTGAACCGGACCCCGGCTGGCAGGCGGT
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GAAGAAGCCGGGATCGCGCTGGTCCCTGGGGTCCCTGGACGCAGGCGGAGGGCACCAGGCCCTG
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Protein Sequence:

>RC218368 representing NM_000180
 Red=Cloning site Green=Tags(s)

MTACARRAGGLPDPGLCGPAWWAPSLPRLPRALPRLPLLLLLLLLQPPALSAVFTVGVLPWACDPIFSR
 ARPDLAARLAAARLNRDPGLAGGPRFEVALLPEPCRTPGSLGAVSSALARVSGLVGPVNPAAACRPAELLA
 EEAGIALVPWGPCPWTQAEGTTAPAVTPAADALYALLRAFWARVALVTAPQDLWVEAGRSLSTALRARGL
 PVASVTSMEPLDLSGAREALRKVRDGPVRTAVIMVMHSVLLGGEEQRYLLEAAEELGLTDGSLVFLPFDT
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 DPARGSFSLSAGTRMHFPRGGSAPGDPSCWFDPNNICGGGLEPGLVFLGFLLVVGMLAGAFLAHYVRHR
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 WLKKFPDQHIARIPATKTAFSKLQELRHENVALYLGLFLARGAEGPAALWENLAVVSEHCTRSLQDL
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 PRAEDQLWTAPELLRDPALERRGTLAGDVFSLAIMQEVVCRSAPYAMLELTPEEVVQVRSPPLCRPL
 VSMQAPVECIILLMKQCWAEQPELRPSMDHTFDL FKNINKGRKTNII DSMLRMLQYSSNLEDLIRERTE
 ELELEKQKTDRLLTQMLPPSVAEALKTGTPVEPEYFEQVTL YFSDIVGFTTISAMSEPIEVVDLLNDLYT
 LFDIAIIGSHDVYK VETIGDAYMVASGLPQRNGQRHAAEIANMSLDILSAVGTFRMRHMPEVPVIRIRIGLH
 SGPCVAGVVGLTMPRYCLFGDVTNTASRMESTGLPYRIHVNLSTVGILRALDSGYVELGRTELKKGGA
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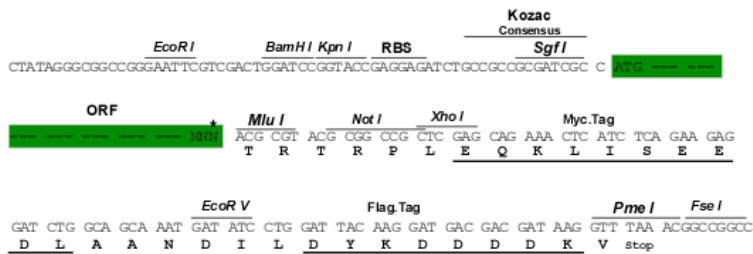
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8001_a04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



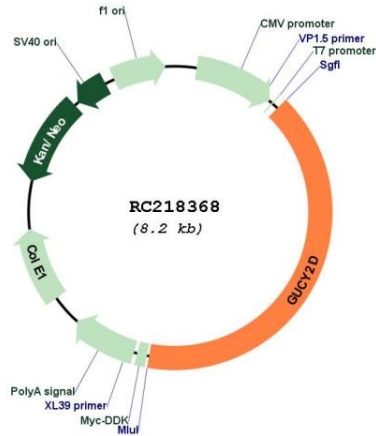
* The last codon before the Stop codon of the ORF

ACCN: NM_000180

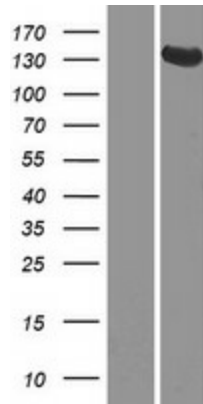
ORF Size: 3309 bp

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:	<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_000180.2
RefSeq Size:	3621 bp
RefSeq ORF:	3312 bp
Locus ID:	3000
UniProt ID:	Q02846
Cytogenetics:	17p13.1
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Olfactory transduction, Purine metabolism
MW:	119.9 kDa
Gene Summary:	This gene encodes a retina-specific guanylate cyclase, which is a member of the membrane guanylyl cyclase family. Like other membrane guanylyl cyclases, this enzyme has a hydrophobic amino-terminal signal sequence followed by a large extracellular domain, a single membrane spanning domain, a kinase homology domain, and a guanylyl cyclase catalytic domain. In contrast to other membrane guanylyl cyclases, this enzyme is not activated by natriuretic peptides. Mutations in this gene result in Leber congenital amaurosis and cone-rod dystrophy-6 diseases. [provided by RefSeq, Dec 2008]

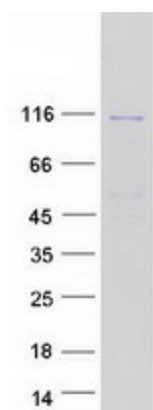
Product images:



Circular map for RC218368



Western blot validation of overexpression lysate (Cat# [LY424878]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218368 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GUCY2D protein (Cat# [TP318368]). The protein was produced from HEK293T cells transfected with GUCY2D cDNA clone (Cat# RC218368) using MegaTran 2.0 (Cat# [TT210002]).