

Product datasheet for **RC204003**

GGCX (NM_000821) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GGCX (NM_000821) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GGCX
Synonyms:	VKCFD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC204003 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGGTGTCTGCCGGTCCGCGGGACCTCGCCAGCTCAGATAAAGTACAGAAAGACAAGGCTGAAC
TGATCTCAGGGCCAGGCAGGACAGCCGAATAGGGAAACTCTGGGTTTTGAGTGACAGATTTGTCCAG
TTGGCGGAGGCTGGTGACCCTGTGAATCGACCAACGGACCCTGCAAGCTTAGCTGTCTTCGTTTTCTT
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TACTTCATTGCGGGTGTAAAAAGCTGGATGCAGACTGGGTTGAAAGGCTATTCATGGAATATTTGCC
GGCACTGGCTCTTCAGTCCCTTCAAAGTCTGTTGCTGAGGAGCTGACTAGCCTGCTGGTCTGCACTG
GGTGGGCTGCTGCTTACCTCTCAGCTGGTTTCTGCTCTTTTTGATGTCTCAAGATCCATTGGCCTG
TTCTTTGTGCTCACTTCCACTGCATGAATCCCAGCTTTTACAGATTGGTATGTTCTCCTACGTATGC
TGGCCAGCAGCCCTCTCTTCTGCTCCCTGAGTGGCTCGGAAGCTGGTGTCTACTGCCCCGAAGGTT
GCAACAAGTGTGCCCTCAAGGCAGCCCTCAGCCAGTGTTCCTGTGTGATAAGAGGAGCCGGGGC
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GTGAGTACCATAAGGTGTATACGACATCACCTAGCCCTTCTTGTACATGTACGTCTATGTCAACACTAC
AGAGCTTGCAGTGGAGCAAGACCTGGCATATCTGCAAGAATTAAGGAAAAGGTGGAGAATGGAAGTGAA
ACAGGGCCTCTACCCCCAGAGCTGCAGCCTCTGTTGGAAGGGGAAAGTAAAAGGGGGCCCTGAGCCACAC
CTCTGGTTTACAGCCTTCTTAGACGCCAACAAAGGCTCCAGGAGATTGAACGCCGGCGAAATACTCCTTT
CCATGAGCGATTCTCCGCTTCTGTTGCGAAAGCTCTATGTCTTTCCGCCGAGCTTCTGATGACTTGT
ATCTCACTTCGAAATCTGATATTAGGCCGCTCTCCCTGGAGCAGCTGGCCAGGAGGTGACTTATGCAA
ACTTGAGACCCTTTGAGGCAGTTGGAGAAGTGAATCCCTCAAACACGGATTCTTCACATTCTAATCCTCC
TGAGTCAAATCCTGATCCTGTCCACTCAGAGTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204003 protein sequence
Red=Cloning site Green=Tags(s)

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MAVSAGSARTSPSSDKVQKDKAELISGPRQDSRIGKLLGFWDLSSWRRLVTLNRPDPASLAVFRFL
FGFLMVLDPQERGLSSLDRKYLDGLDVCRFPLLDALRPLPLDWMYLVYTIMFLGALGMMLGLCYRISCV
LFLLPYWYVFLDKTSWNNHSYL YGLLAFQLTFMDANHYWSDVGLLNAHRRNAHVPLWNYAVLRGQIFIV
YFIAGVKKLDADWVEGYSM EYLSRHWFSPFKLLLSEELTSLLVVHWGGLLLDL SAGFLLFFDVSRSIGL
FFVSYFHCMNSQLFSIGMF SYVMLASSPLFC SPEWPRKLVSYCP RRLQQLLPLKAAPQPSVSCVYKRSRG
KSGQKPLRHQLGAAFTLLYLLEQLFLPYSHFLTQGYNNWTNGLYGSWDMMVHSRSHQHVKITYRDGRT
GELGYLNPGVFTQSRRWKDHADMLKQYATCLSRLLPKYNVTEPQIYFDIWVSINDRFQQRIFDPRVDIVQ
AAWSPFQRTSWVQPLMDLSPWRAKLQEIKSSLDNHTVVFIADFPGLHLENFVSEDLGNTSIQLLQGEV
TVELVAEQKNQTLREGEKMQLPAGEYHKVYTTSPSPSCYMYVYVNTTELAL EQDLAYLQELKEKVENGSE
TGPLPPELQPLLEGEVKGGPEPTPLVQTFLLRQRLQEIERRRNTPFHERFFRLLRKL YVFRRSFLMTC
ISLRNLILGRPSLEQLAQEVTYANLRPFEAVGELNPSNTDSSHSNPPESNPDPVHSEF
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6203_a09.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_000821

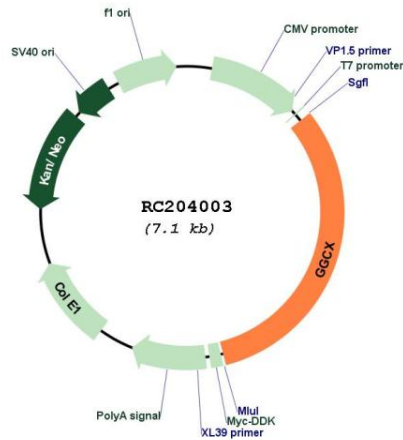
ORF Size: 2274 bp

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](#)

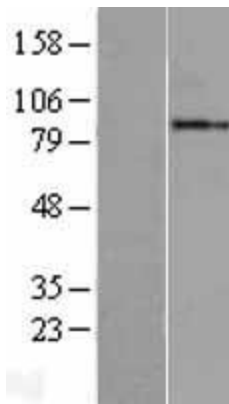
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_000821.7
RefSeq Size:	7475 bp
RefSeq ORF:	2277 bp
Locus ID:	2677
UniProt ID:	P38435
Cytogenetics:	2p11.2
Domains:	VKG_Carbox
Protein Families:	Druggable Genome, Transmembrane
MW:	87.6 kDa
Gene Summary:	This gene encodes an integral membrane protein of the rough endoplasmic reticulum that carboxylates glutamate residues of vitamin K-dependent proteins to gamma carboxyl glutamate, a modification that is required for their activity. The vitamin K-dependent protein substrates have a propeptide that binds the enzyme, with carbon dioxide, dioxide, and reduced vitamin K acting as co-substrates. Vitamin K-dependent proteins affect a number of physiologic processes including blood coagulation, prevention of vascular calcification, and inflammation. Allelic variants of this gene have been associated with pseudoxanthoma elasticum-like disorder with associated multiple coagulation factor deficiency. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2015]

Product images:



Circular map for RC204003



Western blot validation of overexpression lysate (Cat# [LY400291]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204003 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).