

## Product datasheet for **RC213151**

### CTNS (NM\_004937) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CTNS (NM_004937) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CTNS
Synonyms:	CTNS-LSB; PQLC4; SLC66A4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213151 representing NM_004937 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGATAAGGAATTGGCTGACTATTTTTATCCTTTTTCCCTGAAGCTCGTAGAGAAATGTGAGTCAAGCG  
TCAGCCTCACTGTTCTCTCTGTCGTAAGCTGGAGAACGGCAGCTCGACCAACGTCAGCCTCACCTGCG  
GCCACCTAAATGCAACCCTGGTGATCACTTTTGAATCACATTCGTTCCAAAAATTACTATCCTT  
GAGCTCCCGATGAAGTTGTGGTGCCTCCTGGAGTGACAACTCCTTTTTCAAGTGACATCTCAAAATG  
TTGGACAACCTACTGTTTATCTACATGGAATCACTCCAATCAGACCGGCCGAGGATACGCTTTCTTGT  
GATCCGCAGCAGCGCCATTAGCATCATAAACCAGGTGATTGGCTGGATCTACTTTGTGGCCTGGTCCATC  
TCCTTCTACCCTCAGGTGATCATGAATTGGAGGCGGAAAAGTGTCATTGGTCTGAGCTTCGACTTCGTGG  
CTCTGAACCTGACAGGCTTCGTGGCCTACAGTGTATTCAACATCGGCCTCCTCTGGGTGCCCTACATCAA  
GGAGCAGTTTCTCCTCAAATACCCCAACGGAGTGAACCCCGTGAACAGCAACGACGTCTTCTCAGCCTG  
CACGCGTTGTCTCACGCTGATCATCATCGTGCAGTGCCTGTATGAGCGCGGTGGCCAGCGCGTGT  
CCTGGCCTGCCATCGGCTTCCTGGTGCCTCGCGTGGCTCTTCGCATTTGTCACCATGATCGTGGCTGCAGT  
GGGAGTGATCACGTGGCTGCAGTTTCTCTCTGCTTCTCTACATCAAGCTCGCAGTCACGCTGGTCAAG  
TATTTTCCACAGGCTACATGAACCTTTACTACAAAAGCACTGAGGGCTGGAGCATTGGCAACGTGCTCC  
TGGACTTACCGGGGCGAGCTTCAGCCTCCTGCAGATGTTCTCCAGTCTACAACAACGACCAAGTGGAC  
GCTGATCTTCGGAGACCAACCAAGTTTGGACTCGGGGTCTTCTCCATCGTCTTCGACGTCGTCTTCTTC  
ATCCAGCACTTCTGTTTGTACAGAAAGAGACCGGGGTATGACCAGCTGAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC213151 representing NM\_004937  
Red=Cloning site Green=Tags(s)

MIRNWL TIFILFPLKLVEKCESSVSLTVPPVVKLENGSSTNVSLTLRPPLNATLVITFEITFRSKNITIL  
 ELPDEVVPPGVTNSSFQVTSQNVGQLTVYLHGNHSNQTGPRIRFLVIRSSAISIIINQVIGWIYFVAWSI  
 SFYPQVIMNWRKSVIGLSFDFVALNLGTFVAYSVFNIGLLWVPYIKEQFLLKYPNGVNPVNSNDVFFSL  
 HAVVLTLLIIIVQCLYERGGQRVSWPAIGFLVLAWLFAFVTMIVA AVGVITWLQFLFCFSYIKLAVTLVK  
 YFPQAYMNFYKSTEGWSIGNVLLDFTGGSFLLQMFLQSYNNDQWTLIFGDPTKFGLVFSIVFDVVFV  
 IQHFCLYRKRPGYDQLN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3257\\_g05.zip](https://cdn.origene.com/chromatograms/mg3257_g05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004937

**ORF Size:** 1101 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\\_004937.1](#), [NP\\_004928.1](#)

**RefSeq Size:** 2611 bp

**RefSeq ORF:** 1104 bp

**Locus ID:** 1497

**UniProt ID:** [O60931](#)

**Cytogenetics:** 17p13.2

**Domains:** CTNS

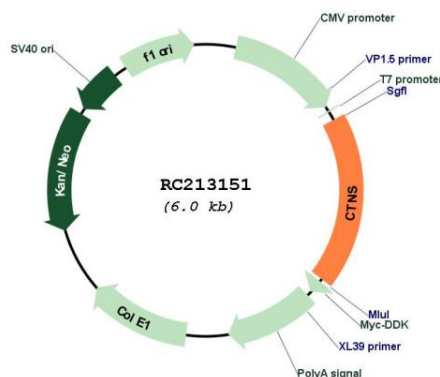
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Lysosome

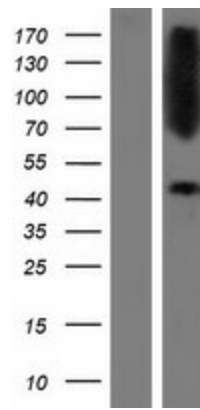
**MW:** 41.6 kDa

**Gene Summary:** This gene encodes a seven-transmembrane domain protein that functions to transport cystine out of lysosomes. Its activity is driven by the H<sup>+</sup> electrochemical gradient of the lysosomal membrane. Mutations in this gene cause cystinosis, a lysosomal storage disorder. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2009]

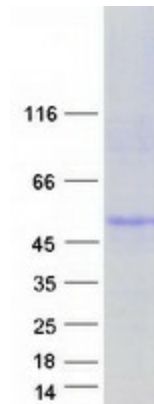
## Product images:



Circular map for RC213151



Western blot validation of overexpression lysate (Cat# [LY417639]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213151 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CTNS protein (Cat# [TP313151]). The protein was produced from HEK293T cells transfected with CTNS cDNA clone (Cat# RC213151) using MegaTran 2.0 (Cat# [TT210002]).