OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC214662

Ornithine Carbamoyltransferase (OTC) (NM_000531) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ornithine Carbamoyltransferase (OTC) (NM_000531) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ornithine Carbamoyltransferase
Synonyms:	OCTD; OTCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214662 representing NM_000531 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGCTGTTTAATCTGAGGATCCTGTTAAACAATGCAGCTTTTAGAAATGGTCACAACTTCATGGTTCGAA ATTTTCGGTGTGGACAACCACTACAAAATAAAGTGCAGCTGAAGGGCCGTGACCTTCTCACTCTAAAAAA CTTTACCGGAGAAGAAATTAAATATATGCTATGGCTATCAGCAGATCTGAAATTTAGGATAAAACAGAAA GGAGAGTATTTGCCTTTATTGCAAGGGAAGTCCTTAGGCATGATTTTTGAGAAAAGAAGTACTCGAACAA GATTGTCTACAGAAACAGGCTTTGCACTTCTGGGAGGACATCCTTGTTTTCTTACCACACAAGATATTCA TTTGGGTGTGAATGAAAGTCTCACGGACACGGCCCGTGTATTGTCTAGCATGGCAGATGCAGTATTGGCT CGAGTGTATAAACAATCAGATTTGGACACCCTGGCTAAAGAAGCATCCATCCCAATTATCAATGGGCTGT CAGATTTGTACCATCCTATCCAGATCCTGGCTGATTACCTCACGCTCCAGGAACACTATAGCTCTCTGAA AGGTCTTACCCTCAGCTGGATCGGGGATGGGAACAATATCCTGCACTCCATCATGATGAGCGCAGCGAAA TTCGGAATGCACCTTCAGGCAGCTACTCCAAAGGGTTATGAGCCGGATGCTAGTGTAACCAAGTTGGCAG AGCAGTATGCCAAAGAGAATGGTACCAAGCTGTTGCTGACAAATGATCCATTGGAAGCAGCGCATGGAGG CAATGTATTAATTACAGACACTTGGATAAGCATGGGACAAGAAGAGGAGAAGAAAAAGCGGCTCCAGGCT TTCCAAGGTTACCAGGTTACAATGAAGACTGCTAAAGTTGCTGCCTCTGACTGGACATTTTTACACTGCT TGCCCAGAAAGCCAGAAGAAGTGGATGATGAAGTCTTTTATTCTCCTCGATCACTAGTGTTCCCAGAGGC AGAAAACAGAAAGTGGACAATCATGGCTGTCATGGTGTCCCTGCTGACAGATTACTCACCTCAGCTCCAG AAGCCTAAATTT ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

View online »

Protein Sequence:

>RC214662 representing NM_000531
Red=Cloning site Green=Tags(s)

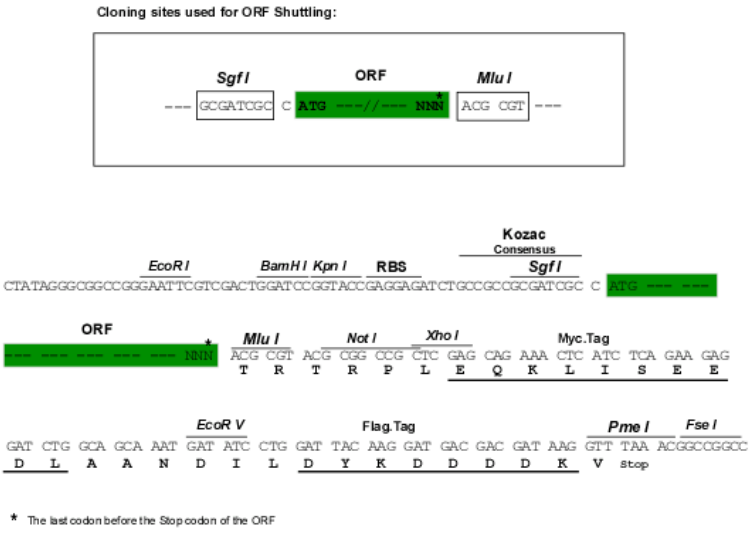
MLFNLRILLNNAAFRNGHNFMVRNFRCGQPLQNKVQLKGRDLLTLKNFTGEEIKYMLWLSADLKFRIKQK
GEYLPLLQGKSLGMIFEKRSTRTRLSTETGFALLGGHPCFLTTQDIHLGVNESLTDTARVLSSMADAVLA
RVYKQSDLDTLAKEASIPIINGLSDLYHPIQILADYLTLQEHYSSLKGLTLSWIGDGNNILHSIMMSAAK
FGMHLQAATPKGYEPDASVTKLAEQYAKENGTKLLLTNDPLEAAHGGNVLITDTWISMGQEEEKKKRLQA
FQGYQVTMKTAKVAASDWTFLHCLPRKPEEVDDEVFYSPRSLVFPEAENRKWTIMAVMVSLLTDYSPQLQ
KPKF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6110_b06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000531

ORF Size: 1062 bp

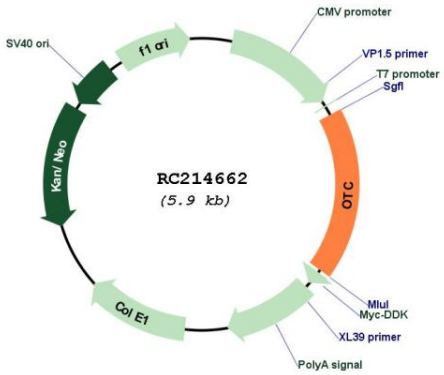
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

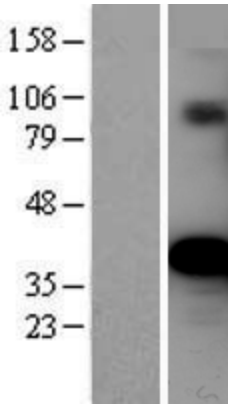
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000531.6
RefSeq Size:	1927 bp
RefSeq ORF:	1065 bp
Locus ID:	5009
UniProt ID:	P00480
Cytogenetics:	Xp11.4
Domains:	OTCace, OTCace_N
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
MW:	39.94 kDa
Gene Summary:	This nuclear gene encodes a mitochondrial matrix enzyme. Missense, nonsense, and frameshift mutations in this enzyme lead to ornithine transcarbamylase deficiency, which causes hyperammonemia. Since the gene for this enzyme maps close to that for Duchenne muscular dystrophy, it may play a role in that disease also. [provided by RefSeq, Jul 2008]

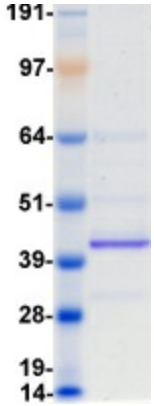
Product images:



Circular map for RC214662



Western blot validation of overexpression lysate (Cat# [LY400179]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214662 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified OTC protein (Cat# [TP314662]). The protein was produced from HEK293T cells transfected with OTC cDNA clone (Cat# RC214662) using MegaTran 2.0 (Cat# [TT210002]).