

Product datasheet for **RC204448**

ICT1 (MRPL58) (NM_001545) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ICT1 (MRPL58) (NM_001545) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ICT1
Synonyms: DS-1; DS1; ICT1; MRP-L58
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC204448 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCCACCAGGTGCCTGCGCTGGGGCCTGAGCCGAGCCGGAGTCTGGCTGCTCCCACCGCCCGCAC
 GGTGCCACGCCGGCGCTGCACAAGCAGAAAGACGGCACTGAGTTCAAGAGCATCTACAGCCTGGACAA
 GCTCTACCCCGAATCTCAGGGCTCGGACACCGCTGGAGGGTCCCGAATGGTGCAAAGCAAGCCGACAGT
 GACATCCCTCTAGATCGTTGACAATATCTTATTGTCGGAGTAGTGGTCTGGGGGCAGAATGTGAACA
 AAGTGAATTCCAAGGCAGAAGTCAGGTTCCATTTGGCAACTGCCGAGTGGATCGCGGAGCCCGTGGCA
 GAAGATAGCCATCAGCATAAAAACAAGATCAACAGGTTAGGAGAGTTGATCCTCACCTCTGAGAGCAGC
 CGCTATCAGTTCCGGAATCTGGCAGATTGCCTGCAGAAAATTCGAGACATGATCACTGAGGCCAGCCAGA
 CACCGAAGGAGCCAACAAAAGAAGATGTTAAACTTCATAGAATCAGGATAGAAAACATGAATCGGGAAAG
 GCTGAGACAAAAGAGAATTCATTCTGCTGTAAGACAAGCAGGAGGGTCGACATGGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204448 protein sequence
 Red=Cloning site Green=Tags(s)

MAATRCLRWGLSRAGVWLLPPPARCPRRALHKQKDGTEFKSIYSLDKLYPESQGSATAWRVPNGAKQADS
 DIPLDRLTISYCRSSGGQNVNKNVNSKAEVRFHLATAEWIAEPVRQKIAITHKNKINRLGELILTSESS
 RYQFRNLADCLQKIRDMITEASQTPKEPTKEDVKLHRIRIENMNRERLRQKRIHSAVKTSRRVMD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/mk6311_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001545

ORF Size: 618 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_001545.3](#)

RefSeq Size: 888 bp

RefSeq ORF: 621 bp

Locus ID: 3396

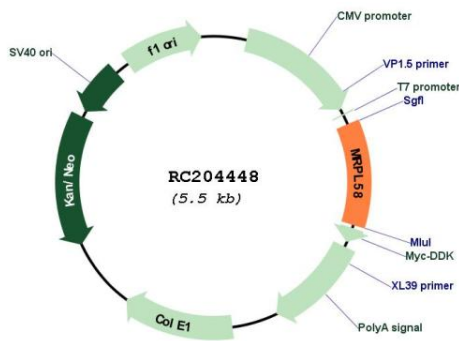
UniProt ID: [Q14197](#)

Cytogenetics: 17q25.1

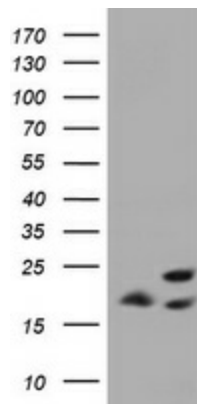
MW: 23.6 kDa

Gene Summary: The protein encoded by this gene is a peptidyl-tRNA hydrolase and a vital component of the large mitochondrial ribosome. The encoded protein serves as a ribosome release factor for this ribosome, which translates mitochondrial genes. This protein may be responsible for degrading prematurely-terminated polypeptides and for reusing stalled ribosomes. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2014]

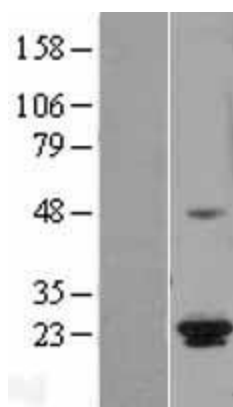
Product images:



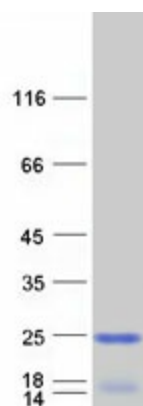
Circular map for RC204448



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ICT1 (Cat# RC204448, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ICT1 (Cat# [TA505881]). Positive lysates [LY419875] (100ug) and [LC419875] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419875]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204448 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MRPL58 protein (Cat# [TP304448]). The protein was produced from HEK293T cells transfected with MRPL58 cDNA clone (Cat# RC204448) using MegaTran 2.0 (Cat# [TT210002]).