

Product datasheet for RN212860

Chchd4 (NM_001013431) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Chchd4 (NM_001013431) Rat Untagged Clone
Tag: Tag Free
Symbol: Chchd4
Synonyms: MGC109542
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN212860 representing NM_001013431
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCTACTGCCGCAGGAAGGAAGGATCGGATCATATTTGTGACCAAAGAAGACCATGAACTCCTA
 GCAGTGCTGAGCTGGTGGCTGATGACCCCAATGATCCCTATGAAGAGCACGGGTTGATACTGCCTAATGG
 AGACATTAACCTGGAATTGCCCATGTCTTGGGGGAATGGCCAGCGGCCCTGTGGGGAGCAGTTCAAGTCT
 GCCTTTTCTGCTTCCACTACAGCACAGAGGATATCAAGGGATCAGACTGTATAGACCAGTTCGGGCCA
 TGCAGGAATGCATGCAGAAATACCCAGACCTCTATCCCAAGACGAGGAGGAGGAAGAGGAGGCAAGCC
 AGTGGAACCAGTGGAGGAAACGGCTGACACTAAGGCTCTGCAGCCAAAGAGCAGGGGGCAAGCTCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-MluI

ACCN: NM_001013431

Insert Size: 420 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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).



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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_001013431.1](#), [NP_001013449.1](#)

RefSeq Size: 1367 bp

RefSeq ORF: 420 bp

Locus ID: 312559

UniProt ID: [Q5BJN5](#)

Cytogenetics: 4q34

Gene Summary: Functions as chaperone and catalyzes the formation of disulfide bonds in substrate proteins, such as COX17, COX19 and MICU1. Required for the import and folding of small cysteine-containing proteins (small Tim) in the mitochondrial intermembrane space (IMS). Precursor proteins to be imported into the IMS are translocated in their reduced form into the mitochondria. The oxidized form of CHCHD4/MIA40 forms a transient intermolecular disulfide bridge with the reduced precursor protein, resulting in oxidation of the precursor protein that now contains an intramolecular disulfide bond and is able to undergo folding in the IMS. Reduced CHCHD4/MIA40 is then reoxidized by GFER/ERV1 via a disulfide relay system. Mediates formation of disulfide bond in MICU1 in the IMS, promoting formation of the MICU1-MICU2 heterodimer that regulates mitochondrial calcium uptake. [UniProtKB/Swiss-Prot Function]