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Product datasheet for MG200873

Chchd4 (NM_133928) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Chchd4 (NM_133928) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Chchd4
Synonyms:	2410012P20Rik; 2810014D17Rik; AI838740
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

```
>MG200873 representing NM_133928
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCTACTGCCGGCAGGAAGGGAAGGATCGGATCATATTTGTGACCAAAGAAGACCATGAAACTCCTA
GCAGTGCCGAGCTGGTGGCTGATGACCCCAATGATCCCTATGAGGAGCACGGGTTGATACTGCCTAACGG
AGATATTAACTGGAATTGTCCATGTCTTGGGGGAATGGCCAGCGGGCCCTGTGGGGAGCAGTTCAAGTCT
GCCTTCTCCTGCTTCCACTACAGCACAGAGGATATCAAGGGATCAGACTGTATAGACCAGTTCCGGGCCA
TGCAAGAGTGCATGCAGAAGTACCCGGACCTCTATCCCCAAGACGAGGAGGAGGAAGAGGAGGCAAAGCC
AGTGGAGCCGGTGGAGGAGACAGCTGACACTAAGGTCTCTGCAGCCAAAGAGCAGGGGACAAGCTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag -  GTTTAA
```

Protein Sequence:

```
>MG200873 representing NM_133928
Red=Cloning site Green=Tags(s)

MSYCRQEGKDRIIFVTKEDHETPSSAELVADDPNDPYEEHGLILPNGDINWNCPCLGGMASGPCGEQFKS
AFSCFHYSTEDIKGSDCIDQFRAMQECMQKYPDLYPQDEEEEEEAKPVEPVEETADTKVSAAKEQGTSS

TRTRPLE - GFP Tag -  V
```

Restriction Sites: SgfI-MluI

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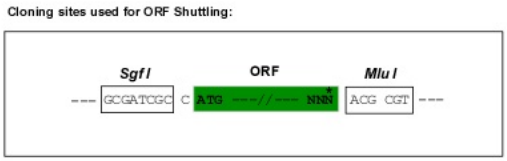
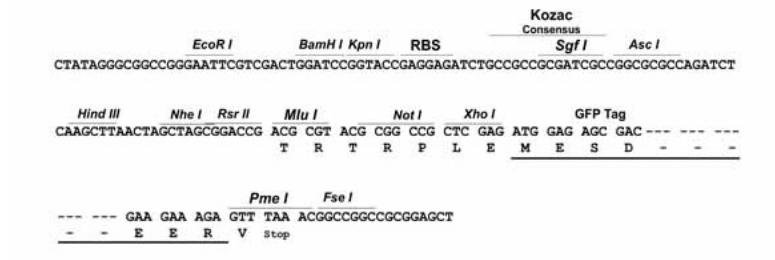
Cloning Scheme:





ACCN: NM_133928

ORF Size: 417 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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).

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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_133928.1

RefSeq Size: 1245 bp

RefSeq ORF: 420 bp

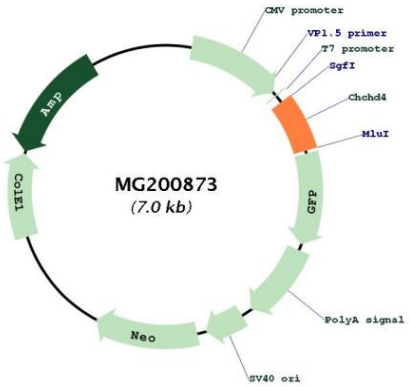
Locus ID: 72170

UniProt ID: Q8VEA4

Cytogenetics: 6 D1

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]

Product images:



Circular map for MG200873

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