

## Product datasheet for **MR210690**

### **Dnajc10 (NM\_024181) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Dnajc10 (NM_024181) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dnajc10
Synonyms:	1200006L06Rik; D2Ertd706e; ERdj5; JPDI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>MR210690 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGAGTCTGGTTAAACAAAGATGACTTTATCAGAGACTTGAAGAGGATCAGTCTCTGTCTTCTGATAC  
 TGTACGTGGTCGTTGTAGTGGGCACAGATCAGAATTTTTACAGTTTACTTGGAGTATCTAAAACCTGCAAG  
 CAGTAGAGAAATAAGACAAGCCTTTAAGAAATTAGCACTGAAGTTACATCCTGATAAAAAACCGAATAAC  
 CCAATGCACATGGTGATTTTTTAAAAATAAATAGAGCATATGAAGTACTCAAAGATGAAGATCTACGGA  
 AAAAGTATGACAAATATGGAGAAAAGGACTTGAAGATAATCAAGGAGGCCAGTATGAGAGCTGGAGCTA  
 CTACCGTTACGATTTTCGGTATTTACGATGATGATCCTGAAATCATAACATTAGAAAAGAAGAGAATTTGAT  
 GCTGCTGTCAACTCTGGAGAAGTGGTTTGTAACTTTTACTCCCAGGATGTTTCGATTGCCATGATT  
 TAGCCCCACTTGGAGAGAATTTGCTAAGAAGTGGATGGGTTGCTTGAATCGGAGCTGTCAACTGTGG  
 TGATGATCGGATGCTCTGCCGAATGAAAGGAGTTAACAGCTACCCAGCCTCTTCATCTTTAGTCTGGA  
 ATGGCTGCAGTGAAGTACAATGGAGATCCGTCAAAGGAGAGCTTAGTGGCCTTCGCCATGCAGCAGTCA  
 GGAGCACAGTGACAGAGCTGTCAACAGGAAATTTTGTAAATGCCATAGAACTGCTTTTGTCTGGTGT  
 TGGCTGGCTGATCACATTCTGCTCTAAAGGAGAAGATTGTTTGACGTACAGACCCGACTCAGGCTTAGT  
 GGCATGTTGGATGGCCTTGTTAACGTGGGATGGGTGGACTGTGACGCCAGGACAGCCTCTGCAAGAGCC  
 TGGACACCACAGCCAGCACCCAGGCTTATTTCCCTCTGGAGCCACTTTGAATGACAGGGGAAAAATCCAG  
 TGTGTTGTTTCTAATTCATTGGATGCTAAGGAAATATACATGGAATCATAATAATCTCCAGACTTT  
 GAACTGCTACAGCAATCAACTAGAGGATCGTTTGGCACATCATCGCTGGCTTGATTTTTTTCATTTTG  
 GAAAAATGAAAACGCAATGATCCTGAGTTGAAAAAAGTAAAACTACTTAAAAATGAGCATATTCA  
 AGTTGGAAGGTTTGATTGCTCTTCTGCACCGGCATCTGCTCTGATCTTTATGTCTTCCAGCCCTGCCTA  
 GCAGTGTTTAAAGGACAAGGAACCAAGAATATGAAACTCATCATGGAAGAAGATTCTATACGATATAC  
 TTGCTTTTGC AAAGAAAGTGTAAATTCTCATGTTACCACACTTGGACCTCAGAACTTCCCTGCAAGTGA  
 CAAGGAACCATGGCTTGTGACTTCTTTGCCCTTGGTGTCCGCCATGTCGTGCGCTTTTGGCGGAGTTA  
 CGGAAAGCATCAACTGCTCTACGGTCAACTCAAAGTTGGTACCTTAGACTGTACAATTCATGAAGGAC  
 TCTGCAACATGTATAACATCCAAGCTTATCCAACGACAGTGGTATTCAATCAGTCCAGTATTCATGAGTA  
 TGAAGGACATCACTCTGCGGAACAGATCTTGGAGTTCATAGAGGATCTCAGAAACCCCTTCAGTGGTCTCT  
 CTTACACCCAGCACTTTCAATGAGCTGGTTAAACAGAGAAAGCATGATGAAGTCTGGATGGTCGATTCT  
 ATTCTCCATGGTGTATCCCTGTGAGGCTTGTATGCCAGAATGGAACGCATGGCCCGGACGTTAACTGG  
 ACTGATCAATGTAGGCAGTGTGGACTGCCAACAGTATCATTCTTTTTGTACTCAAGAAAATGTTCAAAGA  
 TACCCCGAGATAAGATTTTATCCCCAAAAGTCAAGTAAAGCCTATCAGTATCATAGTTACAATGGCTGGA  
 ATAGGGATGCGTATTCCTGAGAAGCTGGGGTCTTGGATTTTTGCCCAAGCATCCATAGATTTAACACC  
 TCAGACTTTCAATGAAAAAGTCTACAAGGAAAACTCACTGGGTGGTGGATTCTATGCTCCTTGGTGT  
 GGACCTTGCCAGAATTTGCTCCTGAGTTTGAAGTCTTGGCTAGGATGATCAAAGGAAAAGTGAAGAGCCG  
 GAAAAGTGGACTGTCAGGCTTACCCAGAGCTGCCAGAAAGCCGGCATCAAAGCCTACCCAGTGTCAA  
 ACTGTACCAGTACGAGAGAGCAAAGAAAAGTATTTGGGAAGAGCAAATAAATTCAGAGATGCAAAAACT  
 ATTGCTGCCTAATTTATGAAAAATTGAAACGCTCCAAGCCAAGTAAAAAGAAAATAAGGATGAGCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

## Protein Sequence:

&gt;MR210690 protein sequence

Red=Cloning site Green=Tags(s)

MGVWLNKDDFIRD LKRISLCLLILYVVVVVGTQNFYSLLGVSKTASSREIRQAFK LALKLHPDKNPN  
PNAHGDFLKINRAYEVLKDEDLRKKYDKYGEKLEDNQGGQYESWSYYRYDFGIYDDDPEIITLERREFD  
AAVNSGELWFVNFYSPGCSHCHDLAPTWREFAKEVDGLLRIGAVNCGDDRMLCRMKGVNSYPSLFI FRSG  
MAAVKYNGDRSKESLVAFAMQHVRSTVTE LSTGNFVNAIETAF AAGVGLITFCSKGEDCLTSQTRLRLS  
GMLDGLVNVGWVDCDAQDSLCKSLDTTASTTAYFPPGATLNDRGKSSVLFNLSDAKEIYMEI IHNLPDF  
ELL SANQLEDRLAHRWL VFFHFGKNENANDPELKKLKTLLKNEHIQVGRFDCSSAPGICSDLYVFQPC L  
AVFKGGQTKKEYETHHGKILYDILAFAKESVNSHVTTLGPQNF PASDKEPWLVDFFAPWCPPCRALLPEL  
RKASTLLYGQLKVGTL DCTIHEGLCNMYNIQAYPTTVVFNQSSIHEYEGHSAEQILEFIEDLRNPSVVS  
LTPSTFNELVKQRKHDEVMMVDFYSPWCHPCQVLMPEWKRMARTLTGLIN VGSVDCQQYHSFCTQENVQR  
YPEIRFY PQSSKAYQYHSYNGWNRDAYSLRSWGLGFLPQASIDLTPQTFNEKVLQ GKTHWVDFYAPWC  
GPCQNF APEFELLARMIK GKVRAGKVDCQAYPQTCQKAGIKAYPSVKLYQYERAKKSIWEEQINSRDAKT  
IAALIYGKLETLQSQV KRNKDEL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

## Restriction Sites:

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_024181

**ORF Size:** 2382 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\\_024181.2](#), [NP\\_077143.2](#)

**RefSeq Size:** 4054 bp

**RefSeq ORF:** 2382 bp

**Locus ID:** 66861

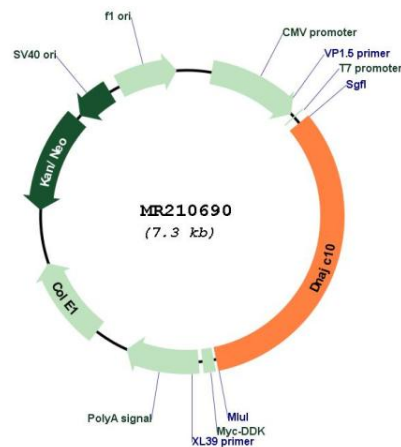
**UniProt ID:** [Q9DC23](#)

**Cytogenetics:** 2 C3

**MW:** 90.5 kDa

**Gene Summary:** Endoplasmic reticulum disulfide reductase involved both in the correct folding of proteins and degradation of misfolded proteins. Required for efficient folding of proteins in the endoplasmic reticulum by catalyzing the removal of non-native disulfide bonds formed during the folding of proteins, such as LDLR. Also involved in endoplasmic reticulum-associated degradation (ERAD) by reducing incorrect disulfide bonds in misfolded glycoproteins recognized by EDEM1. Interaction with HSPA5 is required its activity, not for the disulfide reductase activity, but to facilitate the release of DNAJC10 from its substrate. Promotes apoptotic signaling pathway in response to endoplasmic reticulum stress.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR210690