

Product datasheet for **RR212586**

Dnajc10 (NM_001106486) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Dnajc10 (NM_001106486) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Dnajc10
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR212586 representing NM_001106486
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAGTCTGGTTAAACAGAGATGAATTTATCAGAGACGTGAAGCGGATAAGTCTCTGTCTTCTAGTAC
 TGTATGTGGTTATCGTGGTGGGCACGGATCAGAATTTTTACAGTTTACTTGGAGTGTCTAAAACCTGCAAG
 CAGCAGAGAAAATAAGACAAGCCTTTAAAGAAATAGCACTGAAGTTACATCCTGATAAAAAACCGAATAAC
 CCAATGCACATGGTGATTTTTTAAAAATAAATAGAGCATATGAAGTACTCAAAGATGAAGATCTGCGGA
 AAAAGTATGACAAATACGGAGAAAAGGGCTGGAAGATAATCAGGGAGGCCAGTACGAGAGCTGGAGCTA
 CTACCGCTACGACTTCGGTATTTACGATGATGATCCTGAGATCATAACATTAGAAAAGAAGAGAATTTGAT
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 TAGCCCCACTTGGAGAGAATTTGCTAAGAAGTGGATGGATTGCTTCGAATCGGAGCTGTCAACTGTGG
 TGATGACCGGATGCTTTGCCGAATGAAAGGAGTCAACAGTTACCCAGCCTCTTCATCTTTAGGTCTGGA
 ATGGCTGCAGTGAAGTACAACGGGGATAGGTCAAAGGAGAGCTTAGTGAGCTTCGCCATGCAGCAGTCA
 GGACCACAGTGACAGAGCTGTCAACAGGAAATTTGTTAATGCCATAGAACTGCCTTTGCTGCTGGTAT
 TGGCTGGCTGATCACATTCTGTTTTAAAGGAGAAGATTGTTTGACACCACAGACAGACTCCGGCTTAGT
 GGCATGTTGGATGGCCTTGTTAACGTGGGATGGGTGGACTGTGACACACAGGACAGCCTCTGCAAGAGCC
 TGGACGCCACAGCCAGCACTACTGCCTATTTCCCTCCTGGAGCCACTTTGAATAACAAAGAAAAATCCAG
 TGTTTTGTCTTAATCTCTGGATGCTAAGGAAATATACATGGAATCATACATAATCTCCAGACTTT
 GAATCTTTTTCAGAAAATAAATAGAGGATCGTTTGGCACATCATCGCTGGCTTGATTTTTTTCATTTTG
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 AGTTGGAAGGTTTACTGCTCTTCTGCACCAGGCATCTGCTCTGATCTTTATGTTTTCCAGTCTTGCTA
 GCAGTGTTTAAAGGACAAGGAACCAAGAATATGAAATTCATCACGAAAAGAAAGATTCTATACGATATAC
 TTGCTTTTGCCAAAGAAAGTGTAAATTCGCACGTTACCACACTTGGACCTCAGAATTCCTGCAAGTGA
 CAAAGAACCGTGGCTTGTGACTTCTTTGCCCTTGGTGTCCGCCATGCCGTGCGCTTTTGCCAGAGTTA
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 TCTGCAACATGTATAACATCCAAGCTTATCCAACAACAGTGGTGTCAACCAGTCCAGTGTTCATGAGTA
 TGAAGGACATCATTCTGCGGAACAGATCCTGGAGTTCATAGAGGATCTCAGAAACCCCTCCGTGGTCTCT
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 ATAGGGATGCTTATCCCTGAGAAGCTGGGGTCTCGGGTTTTTACCCCAAGCATCCATAGATTTAACACC
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 GGAAAGTGGACTGTCAGGCTTACCCCAACAGTCCAGAAAAGTGGCATCAGAGCCTACCCAGTGTCAA
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 ATTGCTGCCTAATTTATGAAAAATTGAAACGTTCCAAAGCCAAGTAAAGAGAAAATAAGGATGAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR212586 representing NM_001106486
 Red=Cloning site Green=Tags(s)

MGVWLNRFVIRDKRISLCLLVYVVIIVGTDQNFYSLLGVSKTASSREIRQAFKLLKALHPDKNPN
 PNAHGDFLKINRAYEVLKDEDLRKKYDKYGEKLEDNQGGQYESWSYYRYDFGIYDDPEIITLERREFD
 AAVNSGELWVNFYSPGCSHCHDLAPTWREFAKEVDGLLRIGAVNCGDDRMLCRMKGVNSYPSLIFRSG
 MAAVKYNGDRSKESSLVFSAMQHVRTTVELSTGNFVNAIETAF AAGIGWLITFCFKGEDCLTPQTRLRLS
 GMLDGLVNVGWVDCDTQDSLCKSLDASTTAYFPPGATLNNKEKSSVLFNLSDAKEIYMEIIHNLPDF
 ELLSANKLEDRLAHRWLVFFHFGKNENANDPELKKLTKLLKNEHIQVGRFDCSSAPGICSDLYVFQSC
 AVFKGGQTKYEYIHHGKILYDILAFAKESVNSHVTTLPQNFASPDKPWLVDFFAPWPCPCRALPEL
 RKASTLLYGLKVGTLDCITHEGLCNMYNIQAYPTTVFNFQSSVHEYEGHSAEQILEFIEDLRNPSVVS
 LTPTTFNELVKQRKHDEVWVDFYSPWCHPCQVLMPEWKRMARTLTGLINVSVCQYHSFCTQENVQR
 YPEIRFYQKSSRAYQYHSYNGWNRDAYSLRSWGLGFLPQASIDLTPQTFNEKVLQGKTHWVIDFYAPWC
 GPCQNFAPFELLARMIKGVKAGKVDCAYPQTCQKAGIRAYPSVKLYLYERAKKSIWEEQINSRDAKT
 IAALIYGKLETFQSQVKNKDEL

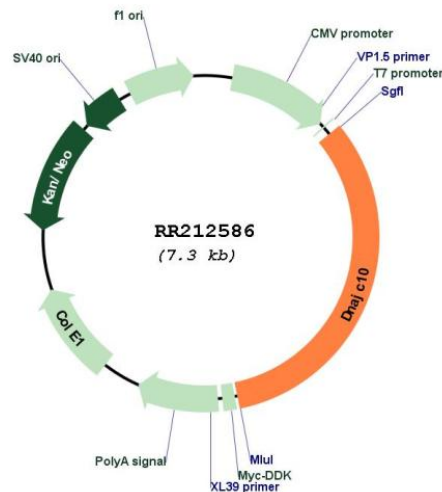
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfi-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001106486

ORF Size: 2379 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_001106486.2](#), [NP_001099956.2](#)

RefSeq Size: 4159 bp

RefSeq ORF: 2382 bp

Locus ID: 295690

UniProt ID: [Q498R3](#)

Cytogenetics: 3q24

MW: 90.7 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 (By similarity). [UniProtKB/Swiss-Prot Function]