

Product datasheet for **SC124472**

MTO1 (NM_133645) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MTO1 (NM_133645) Human Untagged Clone
Tag:	Tag Free
Symbol:	MTO1
Synonyms:	CGI-02; COXPD10
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_133645, the custom clone sequence may differ by one or more nucleotides

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ATGTTCTACTTCCGAGGCTGTGGCCGTTGGGTCGCGGTTTCCTTCACCAAGCAGCAATTTCCGTTGGCAC
GGTTGAGCAGTGACAGCGCGGCCCGGACTCCGCACTTCGACGTGATAGTCATTGGTGGAGGACATGC
CGGGACTGAGGCAGCCACCGCCGCGCTCGGTGCGGCTCTCGGACTCTGCTCCTCACTACCCGCTGGAC
ACGATCGGTGAGATGTCATGTAATCCTTCTTGGTGGCATCGGAAAGGGACATTTAATGAGGGAAGTAG
ATGCCTTGGATGGCTGTGTTCTCGCATCTGTGACCAGTCTGGTGATATTATAAAGTATTAACCGGCG
TAAGGGACCAGCTGTGTGGGCTGTGAGAGCTCAGATTGATAGGAACTCTATAACAGAACATGCAGAAA
GAAATCTTGAATACACCACTGCTTACTGTTGAGGAGGAGCTGTAGAAGATCTTATTCTTACAGAACGAG
AGCCTGAACACACTGGGAAATGCCGTGTCAGTGGGTTGTTTTGGTGGATGGAAGCACAGTATATGCAGA
GAGTGTGATTCTGACTACTGGGACATTTCTGAGAGGCATGATTGTAATTGGATTGGAGACGCATCCAGCA
GGACGTTTAGGGGATCAGCCTTCTATAGGATTGGCTCAGACACTGGAGAAGTTAGGGTTTGGTGGGAA
GGTTGAAGACTGGGACTCCACCCGAATTGCCAAAGAGTCCATTAATTTAGTATTCTAAACAAGCATAT
ACCGGACAATCCATCCATACCATTACAGCTTTACCAATGAGACAGTATGGATTAAGCCAGAAGATCAGCTG
CCATGTTACTTGACTCACACCAACCCTAGAGTGGATGAGATTGTCCTTAAGAACCTTCACCTTAATAGTC
ATGTTAAAGAAACGACAAGAGGACCTCGATACTGTCCCTCCATTGAATCAAAAGTTTTGCGTTTTCCAAA
CCGTCTACATCAGGTTTGGTTGGAACCTGAAGGAATGGATTCTGACCTTATCTACCCACAGGGGTTATCT
ATGACGCTACCAGCTGAGTTACAAGAGAAAATGATCACATGCATCAGAGGCTTGAGAAAAGCTAAAGTGA
TTCAGCCAGACGAGTTTTGCTCTTGTGCCAGGATGGAGTGCAATGGTGCATCTCGGCTCACCACAA
CCTCCCCCTGCCAGGCTACGGTGTTCAGTATGATTACTTAGATCCCCGTGAGTACCCCCCTCCTTGGAG
ACTCATTTGGTTCAACGACTCTTCTTGGTGGACAGATCAATGGCACCAGTGGTTATGAGGAAGCTGCAG
CTCAAGGTGTGATAGCCGAATCAACGCCAGTCTTCGGGTGAGTCGCAAGCCTCCCTTTGTGGTTAGCCG
AACAGAAGGTTACATAGGAGTCTTGATTGATGACCTCACTACTCTGGGCACCAAGTGAACCATACCGCATG
TTTACCAGCCGAGTAGAGTTCCGTTTGTCACTGCGCCCTGATAATGCTGACAGCCGGCTCACACTGCGAG
GGTATAAAGACGCTGGCTGTGTGCCAACAACGATATGAAAGAGCTTGTGGATGAAGTCTTCTTTAGA
AGAAGGCATTTCTGTGTTGAAATCTATTGAGTTTTTGTGCTCTAAATGGAAAAAATTAATCCAGAGGCT
TCTATAAGTACTAGTAGAAGTCTGCCTGTCAGAGCTCTCGATGTTCTGAAGTATGAGGAAGTTGACATGG
ATTCATTAGCCAAGGCTGTTCCAGAGCCCTGAAGAAGTATACTAAATGTAGAGAGCTGGCTGAAAGACT
GAAAATAGAAGCCACTTATGAATCAGTGTGTTCCATCAACTACAAGAAATAAAGGGAGTTCAGCAAGAT
GAAGCTCTCCAAGTGCAGGAGGCTAGATTATTTGACTATCAGGGATGTGTCTTTGTCCCATGAAGTTC
GAGAGAACTACATTTTAGTCGTCACAGACGATCGGGGCTGCTAGTCGCATACCCGGAGTAACACCTGC
CGCCATCATCAATCTGCTGAGATTTGTGAAGACCACTCAACGAAGACAGTCGGCTATGAATGAATCATCC
AAGACTGATCAATACTTATGTGATGCAGACAGACTTCAAGAGAGAGATTATAG

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_133645 unedited

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CACGAGGTCTCTTGTTCGTAAGTTTTTTTACCCTCACTCGTGTGAGCTTCAAAGTCAG
ATAGATTTTTCTCCAGCATGTTCTACTTCCGAGGCTGTGGCCGTTGGTTCGCGGTTTCC
TTCACCAAGCAGCAATTTCCGTTGGCACGTTGAGCAGTGACAGCGCGGCCCGGACT
CCGCACTTCGACGTGATAGTCATTGGTGGAGGACATGCCGGGACTGAGGCAGCCACCGCC
GCCGCTCGGTGCGGCTCTCGGACTCTGCTCCTCACTACCGCGTGGACACGATCGGTGAG
ATGTCATGTAATCCTTCTTGGTGGCATCGGAAAGGGACATTTAATGAGGGAAGTAGAT
GCCTTGGATGGCTGTGTTCTCGCATCTGTGACCAGTCTGGTGATATTATAAAGTATTA
AACCAGGCTAAGGACCAAGCTGTGTGGGCTCTGAGAGCTCAGATTGATAGGAACTCTAT
AAACAGAACATGCAGAAAGAAATCTTGAATACACCACTGCTTACTGTTTCAAGAGGAGCT
GTAGAAGATCTTATTCTTACAGAACAGAGCCTGAACACACTGGGAAATGCCGTGTCAGT
GGGGTTGTTTTGGTGGATGGAAGCACAGTATATGCAGAGAGTGTGATTCTGACTACTGNG
ACATTTCTGAGAGGCATGATTGTAATTGGATT

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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_133645 unedited <pre> NGGACCATGGTGGTAGCCTTTCAATTGGTAGNATTAATANGCAAAGTCCCTATGAGTAGG CAAATCTGCATGTTGAGTTTTATTCCAGGTTTCAGTTTTAGGTTCACTGTCTCTCTTTG ATGAACACTGCACAAAGTTATTTGTATTACAGCTCCTTAAAGAAAGAGTACAAATTGTTT ACGACTAGTTTTTTCATATACACGAAAAAGCACAAATTATAATTTCTGTCCCACTCAGAAA TTAATGGCAAACCATAGTAACCTAATAAAGCTATTTTAAACATGTGCTAAATAATTCTTT TATCTATACTGTTGTATTGATCAAATTATTTATATGCTCTTTAAAAATCTTTTATGAATT GAAAGCTATAACTCTCTCTCTTGAAGTCTGTCTGCATCACATAAGTATTGATCAGTCTTG GATGATTCATTATAGCCGACTGTCTTCGTTGAGTGGTCTTCACAAATCTCAGCAGATTG ATGATGGCGGCAGGTGTTACTCCGGGTATGCGACTAGCAGCCCCGATCGTCTGTGGACGA CTAAAAATGAGTTTCTCTCGAATTCATGGGACAAAGACACATCCCTGATAGTCAAATAA TCTAGGCTCTTTTGGCAGTTGGAGAGCTTCATCTTGCTGAAGTCCCTTTATTTCTGTAGT TGATGGAACAACACTGATTCATAAGTGGCTTCTATTTTCAGTCTTTCAGCCAGCTCTCTA CATTTAGTATACTTCTTCAAGGGCTCTGGGACAGCCTTGGCTAATGAATCCATGTCAACT TCCTCATACTTCAGAACATCGAGAGCTCTGACAGGGAGACTTCTACTAGTACTTATAGGA GCCTCTGGGATTTATTTTTTTCATTTAGAGCTCNAAACTCATAGATTTACACAGGAAG </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_133645
Insert Size:	2750 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).
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_133645.1 , NP_598400.1
RefSeq Size:	2961 bp
RefSeq ORF:	2154 bp
Locus ID:	25821
UniProt ID:	Q9Y2Z2
Cytogenetics:	6q13
Domains:	GIDA
Protein Families:	Druggable Genome

Gene Summary:

This gene encodes a mitochondrial protein thought to be involved in mitochondrial tRNA modification. The encoded protein may also play a role in the expression of the non-syndromic and aminoglycoside-induced deafness phenotypes associated with a specific mutation in the mitochondrial 12S rRNA gene. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) includes an additional in-frame exon compared to variant 1; it encodes isoform b which is longer than isoform a. The additional protein-coding exon contains Alu Sine repeat sequence.