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Product datasheet for SC304464

DUOX1 (NM_017434) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DUOX1 (NM_017434) Human Untagged Clone
Tag:	Tag Free
Symbol:	DUOX1
Synonyms:	LNOX1; NOXEF1; THOX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_017434, the custom clone sequence may differ by one or more nucleotides

ATGGGCTTCTGCCTGGCTCTAGCATGGACACTTCTGGTTGGGGCATGGACCCCTCTGGGAGCTCAGAACC
CCATTTCGTGGGAGGTGCAGCGATTTGATGGGTGGTACAACAACCTCATGGAGCACAGATGGGGCAGCAA
AGGCTCCCGGCTGCAGCGCCTGGTCCCAGCCAGCTATGCAGATGGCGTGTACCAGCCCTTGGGAGAACCC
CACCTGCCCAACCCCCGAGACCTTAGCAACACCATCTCAAGGGGCCCTGCAGGGCTGGCCTCCCTGAGAA
ACCGCACAGTGTTGGGGGTCTTCTTTGGCTATCACGTGCTTTCAGACCTGGTGAGCGTGGAAACTCCCGG
CTGCCCCGCCGAGTTCCTCAACATTCGCATCCCGCCCGGAGACCCCATGTTCGACCCCGACCAGCGCGGG
GACGTGGTGCTGCCCTTCCAGAGAAGCCGCTGGGACCCCGAGACCGGACGGAGTCCCAGCAATCCCCGGG
ACCCGGCCAACCAGGTGACGGGCTGGCTGGACGGCAGCGCCATCTATGGTTCCTCGCATTCCTGGAGCGA
CGCGCTGCGGAGCTTCTCCAGGGGACAGCTGGCGTCGGGGCCCGACCCCGCTTTTCCCCGAGACTCGCAG
AACCCCCTGCTCATGTGGGCGGCGCCCGACCCCGCCACCGGGCAGAACGGGCCCCGGGGGCTGTACGCCT
TCGGGGCAGAGAGAGGGAACCGGGAACCCTTCCTGCAGGCGCTGGGCCTGCTCTGGTTCCGCTACCACAA
CCTGTGGGCGCAGAGGCTGGCCCGCCAGCACCCAGACTGGGAGGACGAGGAGCTGTTCCAGCACGCACGC
AAGAGGGTCATCGCCACCTACCAGAACATCGCTGTGTATGAGTGGCTGCCCAGCTTCCTGCAGAAAACAC
TCCCGGAGTATACAGGATACCGGCCATTTCTGGACCCCAGCATCTCCTCAGAGTTCGTGGCGGCCTCTGA
GCAGTTCCTGTCCACCATGGTGCCCCCTGGCGTCTACATGAGAAATGCCAGCTGCCACTTCCAGGGGGTC
ATCAATCGGAACTCAAGTGTCTCCAGAGCTCTCCGGGTCTGCAACAGCTACTGGAGCCGTGAGCACCCAA
GCCTACAAAGTGCTGAAGATGTGGATGCACTGCTGCTGGGCATGGCCTCCCAGATCGCAGAGCGAGAGGA
CCATGTGTTGGTTGAAGATGTGCGGGATTTCTGGCCTGGGCCACTGAAGTTTTCCCGCACAGACCACCTG
GCCAGCTGCCTGCAGCGGGGCCGGGATCTGGGCCTGCCCTCTTACACCAAGGCCAGGGCAGCACTGGGCT
TGTCTCCCATTACCCGCTGGCAGGACATCAACCCTGCACTCTCCCGGAGCAATGACACTGTACTGGAGGC
CACAGCTGCCCTGTACAACCAGGACTTATCCTGGCTAGAGCTGCTCCCTGGGGGACTCCTGGAGAGCCAC
CGGGACCCTGGACCTCTGTTCAGCACCATCGTCCTTGAACAATTTGTGCGGCTACGGGATGGTGACCGCT
ACTGGTTTGAGAACACCAGGAATGGGCTGTTCTCCAAGAAGGAGATTGAAGAAATCCGAAATACCACCCT

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GCAGGACGTGCTGGTCGCTGTTATCAACATTGACCCCAGTGCTCTGCAGCCCAATGTCTTTGTCTGGCAT
AAAGGAGACCCCTGTCCGCAGCCGAGACAGCTCAGCACTGAAGGCCTGCCAGCGTGTGCTCCCTCTGTTG
TTCGTGACTATTTTGAGGGCAGTGGATTTGGCTTCGGGGTCACCATCGGGACCCTCTGTTGCTTCCCTTT
GGTGAGCCTGCTCAGTGCCTGGATTGTTGCCCGGCTCCGGATGAGAAATTTCAAGAGGCTCCAGGGCCAG
GACCGCCAGAGCATCGTGTCTGAGAAGCTCGTGGGAGGCATGGAAGCTTTGGAATGGCAAGGCCACAAGG
AGCCCTGCCGGCCCGTGCTTGTGTACCTGCAGCCCGGGCAGATCCGTGTGGTAGATGGCAGGCTCACCGT
GCTCCGCACCATCCAGCTGCAGCCTCCACAGAAGGTCAACTTCGTCCTGTCCAGCAACCGTGGACGCCGC
ACTCTGCTGCTCAAGATCCCCAAGGAGTATGACCTGGTGCTGCTGTTTAACTTGGAGGAAGAGCGGCAGG
CGCTGGTGGAAAATCTCCGGGGAGCTCTGAAGGAGAGCGGGTTGAGCATCCAGGAGTGGGAGCTGCGGGA
GCAGGAGCTGATGAGAGCAGCTGTGACACGGGAGCAGCGGAGGCACCTCCTGGAGACCTTTTTCAGGCAC
CTTTTCTCCCAGGTGCTGGACATCAACCAGGCCGACGCAGGGACCCTGCCCCTGGACTCCTCCCAGAAGG
TGCGGGAGGCCCTGACCTGTGAGCTGAGCAGGGCCGAGTTTGCCGAGTCCCTGGGCCTCAAGCCCCAGGA
CATGTTTGTGGAGTCCATGTTCTCTCTGGCTGACAAGGATGGCAATGGCTACCTGTCCTTCCGAGAGTTC
CTGGACATCCTGGTGGTCTTCATGAAAGGCTCTCCTGAGGAAAAGTCTCGCCTTATGTTCCGCATGTACG
ACTTTGATGGGAATGGCCTCATTTCCAAGGATGAGTTCATCAGGATGCTGAGATCCTTCATCGAGATCTC
CAACAACTGCCTGTCCAAGGCCCAGCTGGCTGAGGTGGTGGAGTCCATGTTCCGGGAGTCGGGATTCCAG
GACAAGGAGGAACTGACATGGGAAGATTTTCACTTCATGCTGCGGGACCACAATAGCGAGCTCCGCTTCA
CGCAGCTCTGTGTCAAAGGGGTGGAGGTGCCTGAAGTCATCAAGGACCTCTGCCGGCGAGCCTCCTACAT
CAGCCAGGATATGATCTGTCCCTCTCCCAGAGTGAGTGCCCGCTGTTCCCGCAGCGACATTGAGACTGAG
TTGACACCTCAGAGACTGCAGTGCCCCATGGACACAGACCCTCCCCAGGAGATTCGGCGGAGGTTTGGCA
AGAAGGTAACGTCATTCCAGCCCTTGCTGTTCACTGAGGCGCACCGAGAGAAGTTCCAACGCAGCTGTCT
CCACCAGACGGTGCAACAGTTCAAGCGCTTCATTGAGAACTACCGGCGCCACATCGGCTGCGTGGCCGTG
TTCTACGCCATCGCTGGGGGGCTTTTCCTGGAGAGGGCCTACTACTACGCCTTTGCCGCACATCACACGG
GCATCACAGACACCACCCGCGTGGGAATCATCCTGTCGCGGGGCACAGCAGCCAGCATCTCTTTCATGTT
CTCCTACATCTTGCTCACCATGTGCCGCAACCTCATCACCTTCCTGCGAGAAACCTTCCTCAACCGCTAC
GTGCCCTTCGACGCCGCCGTGGACTTCCATCGCCTCATTGCCTCCACCGCCATCGTCCTCACAGTCTTAC
ACAGTGTGGGCCATGTGGTGAATGTGTACCTGTTCTCCATCAGCCCCCTCAGCGTCCTCTCTTGCCTCTT
TCCTGGCCTCTTCCATGATGATGGGTCTGAGCTCCCCCAGAAGTATTACTGGTGGTTCTTCCAGACCGTA
CCAGGCCTCACGGGGGTTGTGCTGCTCCTGATCCTGGCCATCATGTATGTCTTTGCCTCCCACCACTTCC
GCCGCCGCAGTTTCCGGGGCTTCTGGCTGACCCACCACCTCTACATCCTGCTCTATGTCCTGCTCATCAT
CCATGGTAGCTTTGCCCTGATCCAGCTGCCCCGTTTCCACATCTTCTTCCTGGTCCCAGCAATCATCTAT
GGGGGCGACAAGCTGGTGAGCCTGAGCCGGAAGAAGGTGGAGATCAGCGTGGTGAAGGCGGAGCTGCTGC
CCTCAGGAGTGACCCACCTGCGGTTCCAGCGGCCCCAGGGCTTTGAGTACAAGTCAGGGCAGTGGGTGCG
GATCGCTTGCCTGGCTCTGGGGACCACCGAGTACCACCCCTTCACACTGACCTCTGCGCCCCATGAGGAC
ACGCTTAGCCTGCACATCCGGGCAGCAGGGCCCTGGACCACTCGCCTCAGGGAGATCTACTCAGCCCCGA
CGGGTGACAGATGTGCCAGATACCCAAAGCTGTACCTTGATGGACCATTTGGAGAGGGCCACCAGGAGTG
GCATAAGTTTGAGGTGTCAGTGTTAGTGGGAGGGGGCATTGGGGTCACCCCTTTTGCCTCCATCCTCAAA
GACCTGGTCTTCAAGTCATCCGTCAGCTGCCAAGTGTTCTGTAAGAAGATCTACTTCATCTGGGTGACGC
GGACCCAGCGTCAGTTTGAGTGGCTGGCTGACATCATCCGAGAGGTGGAGGAGAATGACCACCAGGACCT
GGTGTCTGTGCACATCTACATCACCCAGCTGGCTGAGAAGTTCGACCTCAGGACCACTATGCTGTACATC
TGTGAGCGGCACTTCCAGAAGGTTCTGAACCGGAGTCTATTCACAGGCCTGCGCTCCATCACCCACTTTG
GCCGTCCCCCCTTTGAGCCCTTCTTCAACTCCCTGCAGGAGGTCCACCCCCAGGTCCGGAAGATCGGGGT
GTTTAGCTGTGGCCCCCCTGGCATGACCAAGAATGTGGAAAAGGCCTGTCAGCTCATCAACAGGCAGGAC
CGGACTCACTTCTCCCACCATTATGAGAACTTCTAG

Restriction Sites: Please inquire

ACCN: NM_017434

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_017434.3, NP_059130.2
RefSeq Size:	5693 bp
RefSeq ORF:	4656 bp
Locus ID:	53905
UniProt ID:	Q9NRD9
Cytogenetics:	15q21.1
Protein Families:	Druggable Genome, Transmembrane

Gene Summary:

The protein encoded by this gene is a glycoprotein and a member of the NADPH oxidase family. The synthesis of thyroid hormone is catalyzed by a protein complex located at the apical membrane of thyroid follicular cells. This complex contains an iodide transporter, thyroperoxidase, and a peroxide generating system that includes proteins encoded by this gene and the similar DUOX2 gene. This protein is known as dual oxidase because it has both a peroxidase homology domain and a gp91phox domain. This protein generates hydrogen peroxide and thereby plays a role in the activity of thyroid peroxidase, lactoperoxidase, and in lactoperoxidase-mediated antimicrobial defense at mucosal surfaces. Two alternatively spliced transcript variants encoding the same protein have been described for this gene. [provided by RefSeq, Jul 2012]
Transcript Variant: This variant (1) represents the longer transcript. Variants 1 and 2 both encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.