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Product datasheet for RC223975

DUOX1 (NM_017434) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DUOX1 (NM_017434) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DUOX1
Synonyms:	LNOX1; NOXEF1; THOX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC223975 representing NM_017434
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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Protein Sequence:

>RC223975 representing NM_017434
Red=Cloning site Green=Tags(s)

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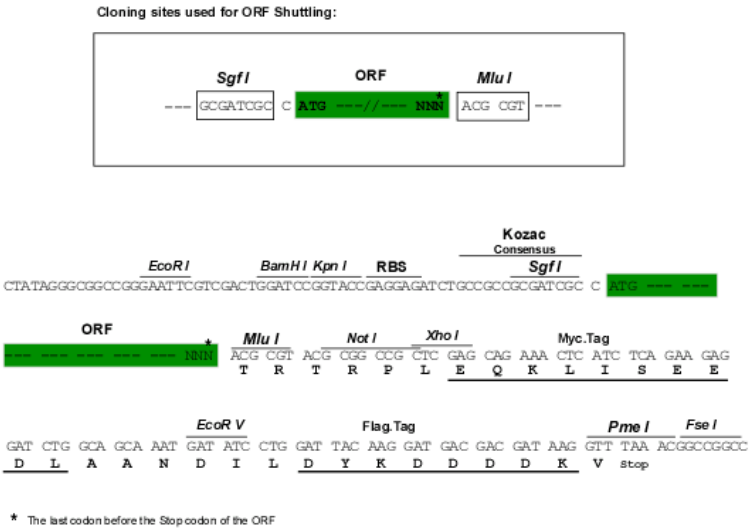
Restriction Sites: SgfI-MluI

Cloning Scheme:



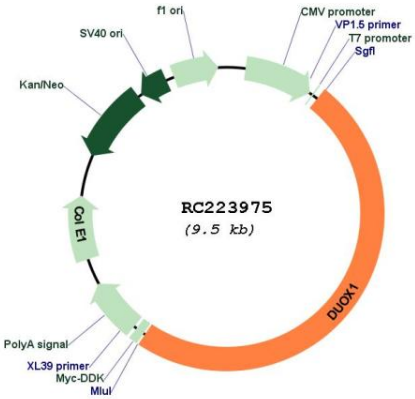
ACCN: NM_017434

ORF Size: 4653 bp

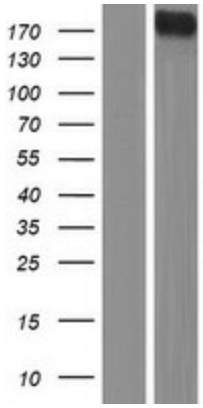
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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).
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_017434.5
RefSeq Size:	5693 bp
RefSeq ORF:	4656 bp
Locus ID:	53905
UniProt ID:	Q9NRD9
Cytogenetics:	15q21.1
Protein Families:	Druggable Genome, Transmembrane
MW:	177.1 kDa

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]

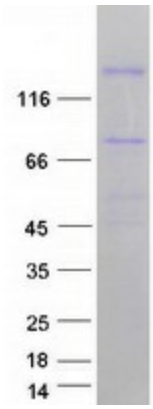
Product images:



Circular map for RC223975



Western blot validation of overexpression lysate (Cat# [LY413789]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223975 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DUOX1 protein (Cat# [TP323975]). The protein was produced from HEK293T cells transfected with DUOX1 cDNA clone (Cat# RC223975) using MegaTran 2.0 (Cat# [TT210002]).