

Product datasheet for **KN223832**

DUOX1 Human Gene Knockout Kit (CRISPR)

Product data:

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| Product Type: | Knockout Kits (CRISPR) |
| Format: | 2 gRNA vectors, 1 GFP-puro donor, 1 scramble control |
| Donor DNA: | GFP-puro |
| Symbol: | DUOX1 |
| Locus ID: | 53905 |
| Components: | <p>KN223832G1, DUOX1 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002), Target Sequence: GGCTCTAGCATGGACACTTC</p> <p>KN223832G2, DUOX1 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002), Target Sequence: CCCTCTGGGTGAGTACAGAT</p> <p>KN223832D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p> <p>Homologous arm and GFP-puro sequences: pUC vector backbone in gray; Left arm sequence in blue; GFP-puro in green; Right arm in violet</p> <pre> TTTGCCCAAC ACCTGTCAC TGTCTTGAAT TAAACCTCCT TCTCACATTT GATTCTGGCA ACCATGCTTA GAAGTAAACA GTTCAGGCAT ATTTGCTCCC ATAGCTGGAA GAGGAAAACA AGGATCAGAT TGGAGAAGTG ATTTATCTAA GATCCCACAG TGGACTGGGA GCAGCACTGA GACCTCAGCC TAGTCTCCTG ATCCCCAAGC AGGGCCCTGC CTAAGGAACA CACTCTGCAG AGTGTGGGC CAAAGCAGGG TTTTCCAAC AATCTTAGAA GGTAAAGTCC ATGAAGGTAT GTACCAGGGA TTTCTGTTTG TTTTGTTCGT CACTTAATCT CCAGTGTCTA TGTCAGTGGC TGGTATGTAG TGGTGCTCAT GAAGTATTTG CCGAATCAAT TAAAGAATTT TCGGAAAAGAG TGAGTCTCTT GAACTTTGCT ACCTACTGTG ACCTTGGCC AGCCCCAGGC CTTGATTCAC AGAGGCCTGC AGAGTCTTTC ACCTGATTCT TCTGAGTAGC TGGGGCTCAT TCTTTGCCTG TCTTTTTCTA GGGTCTCCAT TTTGGGACAT TCTAATCCCT GAGCCCCAT TATTTTCATC GGAGGAGAAG CATGGTTAGG AGCAGAGGAA CCCAGCATCC TCTGGGCTCC CCCAAGGACA GGATCCATTT GATATTCATC TGTATCTTTA GTCTCTAGCT GACACAGTGC CCTGCACATG AGAGTTGCTC ATTTCTAGCT GTTGAAGAAA TAGATGGATA ATGGAATGAA AATTATCCCC AAATACACAG AATTAGGGAG CCTTCAGCTG CTGTCAGCAC TTTCTCTTTT ATTCTTACAG TTTGGGGGCC CTTTCTCTCT CCTCTCTCTT CTCTTGT TTTT CCATAAAGTG AGGGCCTCTG ACTCAAATA GGAAAAGATT GATTAGACAC ATAAGACAAT AAAGGATCTT GGGGTCAGAT TGGACCCAAA GCTGAAGGGG AGTCATCAAT ATGTTTAAAC ATTATGATGA AAAACAAAAG CAATATCTTC CATAAGAGTT TCATGTTGCT GCCTTCAGTA GACAGTTTCT TGCTGGAATC TGAGGCTGCT CTCTGCAGTC CGGATCTCTG TGGAGGGAAG TGGGCCTACA GTGCCACAGT TAAAGTAAA AGATCAAGTC CCTGATCACT GGGGATGGGA GATGCAAAAAG CAGAAAAGCAG </pre> <p>GE100003, scramble sequence in pCas-Guide vector</p> |



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Disclaimer: These products are manufactured and supplied by OriGene under license from ERS. The kit is designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the experimental process.

RefSeq: [NM_017434](#), [NM_175940](#)

UniProt ID: [Q9NRD9](#)

Synonyms: LNOX1; NOXEF1; THOX1

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:

