

Product datasheet for RC213323

LOX (NM_002317) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: LOX (NM_002317) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: LOX
Synonyms: AAT10
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC213323 representing NM_002317
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCGCTTCGCTGGACCGTGCTCCTGCTCGGGCCTTTGCAGCTCTGCGCGCTAGTGCACTGCGCCCTC
CCGCCCGGCCAACAGCAGCCCCCGCGGAGCCCGCGGCTCCGGGCGCTGGCGCCAGCAGATCCA
ATGGGAGAACAACGGGCAGGTGTTGAGCTTGTGAGCCTGGGCTCACAGTACCAGCCTCAGCGCCGCGG
GACCCGGGCGCCCGTCCCTGGTGCAGCAACGCTCCGCCAGCAGCCCCGCACTCCGATCCTGCTGA
TCCGCGACAACCGCACCGCCGCGCGCAACGCGGACGGCCGGCTCATCTGGAGTACCAGCTGGCGCCC
CAGGCCACCGCCGTCCTGTTCCAAGCTGGCTACTCGACATCTAGAGCCCGGAAGCTGGCGCCTCG
CGCGCGGAGAACCAGACAGCGCCGGGAGAAGTTCTGCGCTCAGTAACCTGCGGCCGCCAGCCGCTGG
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CGATACTTATGAAAGGCCAGACCTGGGGCAGGTACCGGCCGGATACGGCACTGGCTACTTCCAGTAC
GGTCTCCAGACCTGGTGGCCGACCCCTACTACATCCAGGCGTCCACGTACGTGCAGAAGATGTCATGT
ACAACCTGAGATGCGCGGCGGAGGAAAAGTGTCTGGCCAGTACAGCATACAGGGCAGATGTCAGAGATTA
TGATCACAGGGTGTCTCAGATTTCCCAAAGAGTAAAAACCAAGGGACATCAGATTTCTTACCAGC
CGACCAAGATATTCCTGGGAATGGCACAGTTGTATCAACATTACCACAGTATGGATGAGTTTACCCTAT
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CACATCCTGTGACTATGGCTACCACAGGCGATTTGCATGTACTGCACACACAGGGATTGAGTCTGGC
TGTTATGATACCTATGGTGCAGACATAGACTGCCAGTGGATTGATATTACAGATGTAACCTGGAACT
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ACGGTACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC213323 representing NM_002317
Red=Cloning site Green=Tags(s)

MRF~~AWT~~VLLLLG~~PL~~QLCALVHCAPPAAGQQQPPREPPAAPGAWRQQIQWENNGQVFSLLSLGSQYQPQRRR
 DPGA~~AV~~PGAANASAQQPRTPILLIRDNRTAAARTRTAGSSGVTAGRPRPTARHWFQAGYSTSRAREAGAS
 RAENQTAPGEVPALSNLRPPSRVDGMVGDDPYNPYKYSDDN~~PN~~YYDYTYERPRPGRYRPGYGTGYFYQY
 GLPDLVADPY~~Y~~IQASTYVQKMSMYNLRCAAENCLASTAYRADVRDYDHRVLLRFPQRVKNQGTSDFLPS
 RPRYSWEHWSCHQHYHSMDEF~~S~~HYDLLDANTQRRVAEGHKASFLEDTSCDYGYHRRFACTAHTQGLSPG
 CYDTYGADIDCQWIDITDVKPGNYILKVSVNPSYLVPE~~SD~~YTN~~NV~~VRCDIRYTGHHAYASGCTISPY

TRTRPLEQKLISEEDLAANDILDYKDDDDK~~V~~

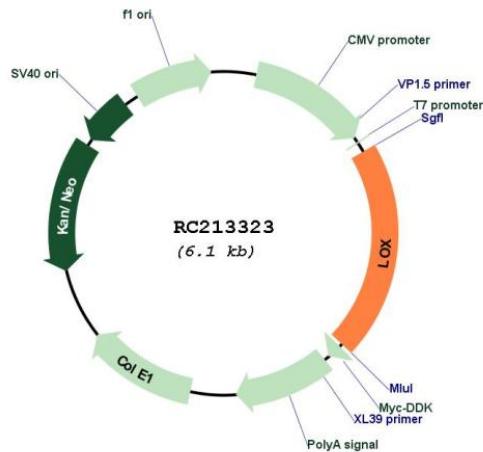
Chromatograms: https://cdn.origene.com/chromatograms/mk6044_a09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



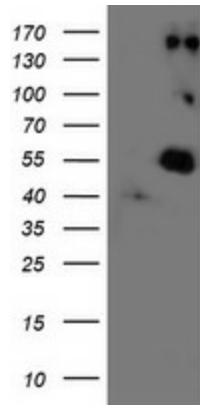
Plasmid Map:



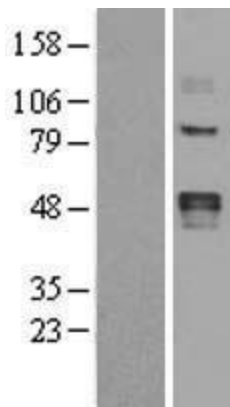
ACCN:	NM_002317
ORF Size:	1251 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid 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.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_002317.7
RefSeq Size:	1946 bp
RefSeq ORF:	1254 bp
Locus ID:	4015
UniProt ID:	P28300
Cytogenetics:	5q23.1
Domains:	Lysyl_oxidase
Protein Families:	Druggable Genome, Secreted Protein
MW:	46.8 kDa

Gene Summary:

This gene encodes a member of the lysyl oxidase family of proteins. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate a regulatory propeptide and the mature enzyme. The copper-dependent amine oxidase activity of this enzyme functions in the crosslinking of collagens and elastin, while the propeptide may play a role in tumor suppression. In addition, defects in this gene have been linked with predisposition to thoracic aortic aneurysms and dissections. [provided by RefSeq, Jul 2016]

Product images:


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LOX (Cat# RC213323, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LOX (Cat# [TA500863]). Positive lysates [LY400843] (100ug) and [LC400843] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400843]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213323 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LOX protein (Cat# [TP313323]). The protein was produced from HEK293T cells transfected with LOX cDNA clone (Cat# RC213323) using MegaTran 2.0 (Cat# [TT210002]).