

Product datasheet for **SC120024**

Lysosomal acid lipase (LIPA) (NM_000235) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lysosomal acid lipase (LIPA) (NM_000235) Human Untagged Clone
Tag:	Tag Free
Symbol:	Lysosomal acid lipase
Synonyms:	CESD; LAL
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC120024 sequence for NM_000235 edited (data generated by NextGen Sequencing)

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ATGAAAATGCGGTTCTTGGGGTTGGTGGTCTGTTTGGTTCTCTGGACCCTGCATTCTGAG
GGGTCTAGAGGGAACTGACAGCTGTGGATCCTGAAACAACATGAATGTGAGTGAATTT
ATCTCTTACTGGGATTCCCTAGTGAGGAATACCTAGTTGAGACAGAAGATGGATATATT
CTGTGCCTTAACCGAATTCCTCATGGGAGGAAGAACCATTCTGACAAAGGTCCCAAACCA
GTTGTCTTCTGCAACATGGCTTGTGTCAGATTCTAGTAAGTGGGTCACAAACCTTGCC
AACAGCAGCCTGGGCTTCATTCTTGTGATGCTGGTTTTGACGTGGATGGGCAACAGC
AGAGGAAATACCTGGTCTCGGAAACATAAGACTCTCAGTTTCTCAGGATGAATTCTGG
GCTTTCAGTTATGATGAGATGGCAAAATATGACCTACCAGCTTCCATTAACCTCATTCTG
AATAAACTGGCCAAGAACAAGTATTATGTGGGTCATTCTCAAGGCACCACTATAGGT
TTTATAGCATTTTACAGATCCCTGAGCTGGCTAAAAGGATTAATGTTTTTGCCTG
GGTCTGTGGCTCCGTCGCCTTCTGACTAGCCCTATGGCCAAATTAGGACGATTACCA
GATCATCTCATTAAAGGACTTATTTGGAGACAAAGAATTTCTTCCCAGAGTGCCTTTTTG
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TGTTTTCTTGTGTGGATTTAATGAGAGAAATTTAAATATGTCTAGAGTGGATGTATAT
ACAACACATTCTCCTGCTGGAACCTCTGTGCAAAACATGTTACTGAGCCAGGCTGTT
AAATCCAAAAGTTTCAAGCCTTTGACTGGGGAAGCAGTGCCAAGAATATTTTCATTAC
AACCAGAGTTATCCTCCACATACAATGTGAAGGACATGCTTGTGCCACTGCAGTCTGG
AGCGGGGTACGACTGGCTTGACAGATGTCTACGACGTCAATATCTTACTGACTCAGATC
ACCAACTTGGTGTTCATGAGAGCATTCCGGAATGGGAGCATCTTGACTTCATTTGGGGC
CTGGATGCCCTTGGAGCTTTATAATAAAATTATTAATCTAATGAGGAAATATCAGTGA

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Clone variation with respect to NM_000235.2
67 g=>a



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000235 unedited
 CTTTTGTATACGACTAACTATAGGCGGCCGCGATTGCGCCGAGCGCGGCCCGGCAGACACT
 CCGATGAAAAGCGGTTCTTGGGGTTGGTGGTCTGTTTGGTTCTCTGGACCCTGCATTCTG
 AGGGGTCTAGAGGGAAACTGACAGCTGTGGATCCTGAAACAAACATGAATGTGAGTGAAA
 TTATCTCTTACTGGGGATTCCCTAGTGAGGACATACCTAGTTGAGACAGAAGATGGATAT
 ATTCTGTGCCTTAACCGAATTCCTCATGGGAGGAAGAACCATTCTGACAAAGTCCCAAA
 CCAGTTGTCTTCCCTGCAACATGGCTTGGTGGCAGATTCTAGTAAGTGGGTCAAAACCTT
 GCCAACAGCAGCCTGGGCTTCATTCTTGCTGATGCTGGTTTTGACGTGTGGATGGCAAC
 AGCAGAGGAAATACCTGGTCTCGGAAACATAAGACACTCTCAGTTTCTCAGGATGAATTC
 TGGGCTTTCAGTTATGATGAGATGGCAAAATATGACCTACCAGCTTCCATTAACTTCATT
 CTGAATAAAACTGGCCAAGAACAAGTGTATTATGTGGGTCATTCTCAAGGCACCACTATA
 GGTTTTATAGCATTTCACAGATCCCTGAGCTGGCTAAAAGGATTAATAATGTTTTTTGCC
 CTGNGTCTGTGGCTCCGTCGCCTTCTGTACTAGCCCTATGGCCAAATTANGACGATTA
 CCAGATCATCTCATTAAAGGACTTATTTGGAGACAAAGAATTTCTTCCCCAGAGTGCNGTN
 TTGAAGTGGCTGGTACCCACGTTTGCACCTCATGTCATACTGAAGGAGCTCTGTGGAAT
 CTCTGTTTCCCTCCTGTGTGGATTAATGAGAGGAATTTAATATGTCTAGAGTGATGTATAT
 ACACACATTCTCTGCTGGAACNCTGTGCAACATGTACACTGGAGCCAGCTGTNTAATT
 CCAAGTTTCAGCCTTTGC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000235 unedited
 NNTTTTTTGGCTTTGGACCCGCGCCGCATNCTAGGATCGAGTTTTTTTTTTTTTTTTTTG
 CCTATAAGTCTCACTCAATTTTATTGAAAAGTTTAAAGACTTTAAAAGTTACAAAGTAGTA
 TTCGCCCTGCCTATATTAACCATTAACAAGCATTGTACTGTTAGTGCAGCTAAAGTAATT
 ATATCAGAAAAACATATCAATTGTCATTTTGTCCACCGGACAGTATTGTAAGGAAATGAT
 GCTGCAAGAAAAGCAGACAAATATGGACTTCCCAACATAGGGACGTGAAGCAGGTGTATT
 AAAAAAAGGATGCATATAAAACTAAGACACAAATGAATCCCTGAGCTGAGTTTGCATC
 CGAAAACATCACGTTTCACTTTCATTTGGGTGAAAATGAACAAGGACACTTCTCATGGGC
 AACCCAGGGGCTTTGGCTTACACAGATGTGATCAATAACGACAGTAGCGGGCTCCAAGA
 GTACATTAATCTCAGAAAAAATAGTGGTATAGTCTCCACAGGGATTTGCTTCTCAGATAA
 GTAGAATATGGCCTGCCATGAAATTGAGAGCTCATGAATATAGATGGTTGAGTGATCA
 GTCTTCAAAGCATTAAAACATACTTTTTGTTTTTGTATCAGTGCAATTTGTTTTTGA
 AGACGCCGGANAACATTTTCATTTAACCTGAGCAATTAACCGTGTCAAATCACAGCTGT
 CACAGTTAGGTTTGATAAAATTAATTGTTAGCATCCTTATTACTGGCACAGCTGTGATAT
 TTCTGGATTTGACTATGCACCTGCTGCNAGAAACATGATAAATGTCATTTAGATCTCTAC
 TACAAGACCGTTAGACTAGAGAGCTTTTAAGGCAGGACATGAAACTGCGTNACTTTATA
 CTCGCT

Restriction Sites:

NotI-NotI

ACCN:

NM_000235

Insert Size:

2550 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](#)

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_000235.2](#), [NP_000226.2](#)

RefSeq Size: 2654 bp

RefSeq ORF: 1200 bp

Locus ID: 3988

UniProt ID: [P38571](#)

Cytogenetics: 10q23.31

Domains: abhydrolase, abhydro_lipase

Protein Families: Druggable Genome

Protein Pathways: Lysosome, Steroid biosynthesis

Gene Summary: This gene encodes lipase A, the lysosomal acid lipase (also known as cholesterol ester hydrolase). This enzyme functions in the lysosome to catalyze the hydrolysis of cholesteryl esters and triglycerides. Mutations in this gene can result in Wolman disease and cholesteryl ester storage disease. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jan 2014]

Transcript Variant: This variant (2) lacks an internal segment in the 5' UTR, as compared to variant 1. Variants 1 and 2 encode the same isoform (1).