

## Product datasheet for **SC103296**

### Laminin (LAMA1) (AK091949) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Laminin (LAMA1) (AK091949) Human Untagged Clone
Tag:	Tag Free
Symbol:	Laminin
Synonyms:	LAMA; PTBHS; S-LAM-alpha
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC103296 sequence for AK091949 edited (data generated by NextGen Sequencing)

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ATGCTGATCGGAGGCAACATTGAGGTACATGTCAATCCTGGGGATGGGACAGGCCTGAGA
AAAGCTCTCTGCACGCTCCCACGGGTACCTGCAGTGATGGACAAGCGCATTCCATCTCC
TTGGTCAGGAATCGGAGAATTATCACTGTCCAATTGGATGAGAACAATCCTGTGGAATG
AAGTTGGGCACATTAGTAGAAAGCAGGACGATAAATGTGTCCAATCTGTACGTCGGGGGA
ATTCCAGAGGGAGAGGGGACGTCACTGCTCACAATGAGAAGATCGTTCCATGGCTGTATC
AAAAACCTGATCTTCAATTTGGAACTTTTGGATTTCAACAGTGCAGTTGGCCATGAGCAA
GTCGACCTGGACACCTGTGGCTGTCAGAAAGGCCTAAGCTGGCTCCCGATGCAGAGGAC
AGCAAAGCTCTTGCCAGAGCCCCGGGCTTTTCCAGAACAGTGTGTGGTGGATGCAGCTCTG
GAGTACGTTCCCGGCGCTCACCAGTTTGGTCTCACAAAAACAGCCATTTTCATCTTGCTT
TTAATCAGTCGGCTGTCAGAAAGAAAGCTCTCGGTTGAGCTAAGCATCCGCACGTTCCGC
TCCAGCGGCTGATTTACTACATGGCTCATCAGAACCAAGCAGACTACGCTGTGCTCCAG
CTGCACGGGGCCGCTCCACTTCATGTTTGACCTTGGCAAAGGCAGAACAAAGGTCTCT
CACCTGCACTGCTCAGTGATGGCAAGTGGCACACGGTCAAGACAGACTATGTTAAAAGA
AAAGGCTTCATAACTGTGCGACGGCCGAGAGTCTCCCATGGTGACTGTGGTGGGAGATGGA
ACCATGTGGATGTGGAGGGTTTGTCTACCTAGGAGGCCTGCCCTCCAGTACCAGGCC
AGGAAAATTGAAATATCACCCACAGCATCCCTGCCTGCATTGGGGATGTGACGGTTAAC
AGCAAACAGCTGGACAAGGACAGCCCGGTGTCTGCCTTACGGTGAACAGGTGCTACGCA
GTGGCCAGGAAGGAACATACTTTGACGGAAGCGGATATGCAGCTCTTGTCAAAGAGGGC
TACAAAGTCCAGTCAGATGTGAACATCACACTGGAGTTTCGAACCTCCTCGCAGAATGGC
GTCCTCTGGGGATCAGCACTGCCAAAGTGGATGCCATTGGACTAGAGCTTGTGGACGGC
AAGGCTTGTCCATGTCAACAATGGTGTGGCAGGATAACAGCTGCATATGAGCCAAA
ACCGCCACTGTGCTCTGTGATGGAAAATGGCACACTCTTCAAGCTAACAAAAGCAAACAC
CGTATCACTCTGATTGTTGACGGGAACGCAAGTTGGCGCTGAAAAGTCCACACCCAGTCT
ACCTCAGTGGACACCAACAATCCCATTTATGTTGGTGGCTATCCTGCTGGTGTGAAGCAA
AAATGCCTGCGCAGCCAGACCTCGTTCCGCGGGTGTGGAGGAAGCTAGCTCTGATTAAG
AGCCCGCAGGTGCAGTCTTTGACTTCAGCAGAGCGTTTCAACTGCACGGAGTTTTCCTT
CATTCTGTCTGGGACNGAGTCTCTGA
    
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Clone variation with respect to AK091949.1  
1450 t=>c;1578 c=>n

**5' Read Nucleotide Sequence:**

>OriGene 5' read for AK091949 unedited

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CCATATGGATCCGACTCACTATAGGNNCGCCGCGCAATTCGGCACGAGGGCTACATTG
AATTGCCACCCAAATCTTTGTACCAGAATCAGAATGGCTGGTAACATTTGCCACCACGA
ACAGCAGTGGCATCATCCTGGCTGCCCTCGGCGGGATGTGGAGAAGCGGGGTGACCGTG
AGGAAGCACACGTGCCCTTCTTTCCGTCATGCTGATCGGAGGCAACATTGAGGTACATG
TCAATCCTGGGGATGGGACAGGCCTGAGAAAAGCTCTCCTGCACGCTCCCACGGGTACCT
GCAGTGATGGACAAGCGCATTCCATCTCCTTGGTCAAGAAATCGGAGAATTATCACTGTCC
AATTGGATGAGAACAACTCTGTGGAAAATGAAGTTGGGCACATTAGTAGAAAGCAGGACGA
TAAATGTGTCCAATCTGTACGTCGGGGGAATCCAGAGGGAGAGGGGACGTCAGTCTCA
CAATGAGAAGATCGTTCCATGGCTGTATCAAAAACCTGATCTTCAATTTGAACTTTTGG
ATTTCAACAGTGCAGTTGGCCATGAGCAAGTCGACCTGGACACCTGCTGGCTGTCAGAAA
GGCCTAAGCTGGCTCCCGATGCAGAGGACAGCAAGCTCTTGCCAGAGCCCCGGGCTTTTC
CAGAACAGTGTGTGGTGGATGCAGCTCTGGAGTACGTTCCCGGCGCTCACCAGTTTGGTC
TCACACAAAACAGCCATTTTCATCTTGCCTTTAATCAGTCGGCTGTCAGAAAAGAGCTCT
CGGTTGAGCTAAGCATCCGCACGTTTCGCTCCAGCGGNCCTGATTACTACATGGCTCATC
AGAACCAAGCAGACTACGCTGTGCTCCAGCTGCACGGGGCCGCTNCATTCATGTTTG
ACCTTNGGCAAGCAGAACAAAGGTCTCTCACCTGCACTGCTCANTGATGGCCAGTGACAC
GTCAAGACNGACTATGTAAGAAAAGCTNCATACTGTGCGACCGGAG
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for AK091949 unedited NNGGGTTTGCTCCTGTTTTGGTACTTTTTTAAAAGCTCAAATGNAAAAACATAAAATACT ATCAAGTAATCAACAGAACATTCAATGTGTATAAAGATTTTTTAAAAATACGTTTAAAA AGAGAGCCAGGGAATTCATTTTACATTTTAGACCATTTAATGGAGGTATTTGTTGCACAT GTGGTTTTAGTGTAAACGTAACACAACATCTCTCCCAGAAACACTTAACCTGAGTTGGA AATGAAATATGAACTGAAGAGATTCTTAATTCACACATACACTTCTCCTCAAAATATTAG CAATGATTCCAAGTGAAGATTCTGCTTGAAGTTCAGGACTCGGTCCCAGGACAGGAATGA AGGAAAACCTCCGTGCAGTTCGAACGCTCTGCTGAAGTCAAAGGACTGCACCTGCGGGCTC TTAATCAGAGCTAGCTTCTCAAACACCCGCGGAACGAGGTCTGGCTGCGCAGGCATTTT TGCTTCACACCAGCAGGATAGCCACCAACATAAATGGGATTGTTGGTGTCCACTGAGGTA GACTGGGTGTGTGGACTTTCAGCGCAACTGCGTTCCTGCAACAATCAGAGTGATACGG TGTTTGCTTTTGTAGCTTGAAGAGTGTGCCATTTTCCATCACAGAGCACAGTGGCGGTT TTGGGCTCATATGCAGCTGTTATCCTGCCAGCACCATTGTTGACATGGAACAAGACCTTG CCGTCCACAAGCTCTAGTCCAATGGCATCCACTTTGGCAGTGCTGATCCCAGGAGGACG CCATTCTGCGAGGAGTTCGAAACTCCAGTGTGATGTTTACATCTGACTGGACTTGTAGC CCTCTTTTGACAGAGCTGCCTATCCGCTTCCGTCAAAGTATGGTTCCTTCTGGGCCACT CGTTACAC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	AK091949
<b>Insert Size:</b>	2200 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">AK091949.1</a></u> , <u><a href="#">BAG52448.1</a></u>
<b>RefSeq Size:</b>	2825 bp
<b>RefSeq ORF:</b>	1587 bp
<b>Locus ID:</b>	284217
<b>Cytogenetics:</b>	18p11.31
<b>Domains:</b>	LamG
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS
<b>Protein Pathways:</b>	ECM-receptor interaction, Focal adhesion, Pathways in cancer, Small cell lung cancer

**Gene Summary:**

This gene encodes one of the alpha 1 subunits of laminin. The laminins are a family of extracellular matrix glycoproteins that have a heterotrimeric structure consisting of an alpha, beta and gamma chain. These proteins make up a major component of the basement membrane and have been implicated in a wide variety of biological processes including cell adhesion, differentiation, migration, signaling, neurite outgrowth and metastasis. Mutations in this gene may be associated with Poretti-Boltshauser syndrome. [provided by RefSeq, Sep 2014]