

## Product datasheet for **SC118732**

### Lymphocyte Activation Gene 3 (LAG3) (NM\_002286) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lymphocyte Activation Gene 3 (LAG3) (NM_002286) Human Untagged Clone
Tag:	Tag Free
Symbol:	Lymphocyte Activation Gene 3
Synonyms:	CD223
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_002286 edited  
 CTGCTCTCCGCCACGGCCCTGCTCTGTTCCCTGGGACACCCCCGCCCCACCTCCTCAGG  
 CTGCCTGATCTGCCAGCTTTCCAGCTTTCCTCTGGATTCCGGCCTCTGGTCATCCCTCC  
 CCACCCTCTCCAAGGCCCTCTCTGGTCTCCCTTCTTCTAGAACCCTTCTCCACCT  
 CCCTCTCTGCAGAACTTCTCCTTACCCCCACCCCCACCACTGCCCTTTTCTTTTC  
 TGACCTCTTTTGGAGGGCTCAGCGCTGCCAGAC : CATAG : GAGAGATGTGGGAGGTC  
 AGTTCCCTGGGCTTGTCTTTCTGCAGCCGCTTTGGTGGCTCCAGTGAAGCCTCTCCAGC  
 CAGGGGCTGAGGTCCCGTGGTGTGGGCCAGGAGGGGGCTCCTGCCAGCTCCCCTGCA  
 GCCCACAAATCCCCCTCCAGGATCTCAGCCTTCTGCGAAGAGCAGGGGCACTTGGCAGC  
 ATCAGCCAGACAGTGGCCCGCCGCTGCCGCCCGGCCATCCCCTGGCCCCGGCCCTC  
 ACCCGGGCGCCCTCCTCTGGGGGCCAGGCCCGCCGCTACACGGTGTGAGCGTGG  
 GTCCCGGAGGCTGCGCAGCGGGAGGCTGCCCTGCAGCCCCGCTCCAGCTGGATGAGC  
 GCGGCCGCGAGCGGGGACTTCTCGTATGGCTGCGCCAGCCCGCGCGCGGACGCCG  
 GCGAGTACCGCGCGGTGCACCTCAGGACCGCCCTCTCCTGCCGCTCCGTCTGC  
 GCCTGGGCCAGGCTCGATGACTGCCAGCCCCAGGATCTCTCAGAGCCTCCGACTGGG  
 TCAATTTGAACTGCTCCTTCAGCCGCCCTGACCGCCAGCCTCTGTGCATTGGTTCCGGA  
 ACCGGGGCCAGGGCCGAGTCCCTGTCCGGGAGTCCCCCATCACCACTTAGCGGAAAGCT  
 TCCTTTCTGCCCAAGTCAGCCCCATGGACTCTGGGCCCTGGGGCTGCATCCTCACCT  
 ACAGAGATGGCTTCAACGTCTCCATCATGTATAACCTCACTGTTCTGGGTCTGGAGCCCC  
 CAACTCCCTTGACAGTGTACGCTGGAGCAGGTTCCAGGGTGGGGCTGCCCTGCCGCTGC  
 CTGCTGGTGTGGGACCCGGTCTTCTCACTGCCAAGTGACTCCTCCTGGGGAGGCC  
 CTGACCTCCTGGTACTGGAGACAATGGCGACTTACCTTCGACTAGAGGATGTGAGCC  
 AGGCCAGGCTGGGACTACACCTGCCATATCCATCTGCAGGAACAGCAGCTCAATGCCA  
 CTGTACATTGGCAATCATCACAGTGACTCCCAAATCCTTTGGGTACCTGGATCCCTGG  
 GGAAGCTGCTTTGTGAGGTGACTCCAGTATCTGGACAAGAACGCTTTGTGTGAGCTCTC  
 TGGACACCCATCCCAGAGGAGTTTCTCAGGACCTTGGCTGGAGGCACAGGAGGCCACGC  
 TCCTTTCCAGCCTTGGCAATGCCAGCTGTACCAGGGGAGAGGCTTCTTGGAGCAGCAG  
 TGTACTTACAGAGCTGTCTAGCCAGGTGCCAACGCTCTGGGAGAGCCCCAGGTGCC  
 TCCCAGCAGGCCACCTCCTGCTGTTTTCTATCCTTGGTGTCTTTCTCTGCTCTTTTGG  
 TGACTGGAGCCTTTGGCTTTCACCTTTGGAGAAGACAGTGGCGACCAAGACGATTTTCTG  
 CCTTAGAGCAAGGATTACCTCCGAGGCTCAGAGCAAGATAGAGGAGCTGGAGCAAG  
 AACCAGGAGCCGAGCCGAGCCGAACCGAGCCCGAGCCCGAGCCCGAGCCGGAGCAGC  
 TCTGACCTGGAGCTGAGGCAGCCAGCAGATCTCAGCAGCCAGTCCAAATAAACTCCCTG  
 TCAGCAGCAAAA

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_002286 unedited  
 AATTTGTAATACGACTTACTATAGGGCGCCGCGAATTCGGCACGAGGCTGCTCTCCGCC  
 ACGGCCCTGCTCTGTTCCCTGGGACACCCCCGCCCCACCTCCTCAGGCTGCCTGATCTG  
 CCCAGCTTTCAGCTTTCCTCTGGATTCCGGCCTCTGGTCATCCCTCCCCACCCTCTCTC  
 CAAGGCCCTCTCCTGGTCTCCCTTCTTCTAGAACCCTTCTCCACCTCCCTCTCTGCAG  
 AACTTCTCCTTTACCCCCACCCCCACCACTGCCCTTTCTTTTCTGACCTCCTTTT  
 GGAGGGCTCAGCGCTGCCAGACCATAGGAGAGATGTGGGAGGCTCAGTTCCTGGGCTTG  
 CTGTTTCTGCAGCCGCTTTGGTGGCTCCAGTGAAGCCTCTCCAGCCAGGGGCTGAGGTC  
 CCGGTGGTGTGGGCCAGGAGGGGGCTCCTGCCAGCTCCCTGCAGCCCCACAATCCCC  
 CTCAGGATCTCAGCCTTCTGCGAAGAGCAGGGGTCACTTGGCAGCATCAGCCAGACAGT  
 GGCCCGCCGCTGCCGCCCGGCCATCCCTGGCCCCGGCCCTCACCCGGCGGCGCC  
 TCCTCCTGGGGGCCAGGCCCGCCGCTACACGGTGTGAGCGTGGGTCCCGGAGGCCTG  
 CGCAGNCGGAGGCTGCCCTGCAGCCCCGCTCCAGCTGGATGAGCCGCGCCCCGACGG  
 CGGGACTTCTCGCTATGGCTGCGCCAGCCCCGCGCGGACGCCNCGAGTACCGCGCC  
 CGCGTGCACCTNAGGNNACCGNGCCCTCTCCTGCCNCTNCGTNTGCGCTGGGGCCAGC  
 CTCGATGACTGCCAGNCCCCAGATCTCTCAGACCTCCGACTGGGTCAATNTGACTGCTC  
 CTTAGCGCCTGACGCCANCTGTGCATT

<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_002286 unedited            CCGCGGCCGATTTTAGAGTCGAGTTTTTTTTTTTTTTTTTTTGGCTGCTGACAGGGAGTTT            ATTTGGACTGGGCTGCTGAGATCTGCTGGCTGCCTCAGCTCCAGGTCAGAGCTGCTCCGG            CTCGGGCTCGGGCTCGGGCTCCGGTTCCGGCTCCGGCTCCGGCTCCGGTTCTTGCTCCAG            CTCCTCTATCTTGCTCTGAGCCTGCGGAGGGTGAATCCCTTGCTTAAGGCAGAAAATCG            TCTTGGTCGCCACTGTCTTCTCCAAAGGTGAAAGCCAAAGGCTCCAGTACCAAAAAGGAG            CAGAGAAAAGGACACCAAGGATGAGAAACAGCAGGAGGTGGCCTGCTGGGAGGGCACCTGG            GGCTCTCCAGAGCGTTGGGCACCTGGGCTAGACAGCTCTGTGAAGTACACTGCTGCTCC            AAGAAGCCTCTCCCCCTGGTACAGCTGGCATTGCCAAGGCTGGGAAAGGAGCTGGGCCTC            CTGTGCCTCCAGCCAAGGCTCTGAGAACTCCTCTGGGATGGGGTGTCCAGAGAGCTCCA            CACAAAGCGTTCTTGCCAGATACTGGAGTCACCTCACAAAGCAGCTTCCCCAGGGATCC            ANGTGACCCAAAGGATTTGGGAGTCACTGTGATGATTGCCAATGTGACAGTGGCACTGAG            CTGCTGTTCTGCAGATGGATATGGCACGCGTAAGTCCCACCCTGGGCCTGCCTCACATC            CTCTAGTCGAAGGGTAAAGTCGCCATTGTCTTCATCACCAGGAGGTCACGGCCTCCCCCA            GNAGGAGTCCCCTTGGCAGTGAAGAAAGACCTGGCTCCCCCCCCAACAGGCAGCGGCAG            GCCAACCCACCCTGNACCCTGCTACCGTACACTGNCCAGGGAGTTGGGGGCTCCAGAC            CCCACACGGGGTTTCCCTGAGGAAACCTGGAGCCTC</p>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_002286
<b>Insert Size:</b>	1900 bp
<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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>	<a href="#">NM_002286.4</a> , <a href="#">NP_002277.3</a>
<b>RefSeq Size:</b>	1991 bp
<b>RefSeq ORF:</b>	1578 bp
<b>Locus ID:</b>	3902
<b>UniProt ID:</b>	<a href="#">P18627</a>
<b>Cytogenetics:</b>	12p13.31
<b>Domains:</b>	ig, IG
<b>Protein Families:</b>	Transmembrane
<b>Gene Summary:</b>	Lymphocyte-activation protein 3 belongs to Ig superfamily and contains 4 extracellular Ig-like domains. The LAG3 gene contains 8 exons. The sequence data, exon/intron organization, and chromosomal localization all indicate a close relationship of LAG3 to CD4. [provided by RefSeq, Jul 2008]