

## Product datasheet for **RG220269**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lymphocyte Activation Gene 3 (LAG3) (NM_002286) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lymphocyte Activation Gene 3
Synonyms:	CD223
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG220269 representing NM\_002286  
 Red=Cloning site Blue=ORF Green=Tags(s)  
 TTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGGGAGGCTCAGTTCCTGGGCTTGCTGTTTCTGCAGCCGCTTGGGTGGCTCCAGTGAAGCCTCTCC  
 AGCCAGGGCTGAGGTCCCGGTGGTGTGGGCCAGGAGGGGGCTCCTGCCAGCTCCCCTGCAGCCAC  
 AATCCCCCTCCAGGATCTCAGCCTTCTGCGAAGAGCAGGGGTCACTTGGCAGCATCAGCCAGACAGTGGC  
 CCGCCCGTGCCGCCCGGCCATCCCCTGGCCCCGGCCCTACCCGGCGGCCCTCCTCTGGGGG  
 CCAGGCCCGCCGCTACACGGTCTGAGCGTGGTCCCGAGGCTGCGCAGCGGGAGGCTGCCCTGCA  
 GCCCGCGTCCAGCTGGATGAGCGCGGCCGCGAGCGGGGACTTCTCGTATGGCTGCGCCAGCCCG  
 CGCGGGACGCCGGGAGTACCGCGCCGGTGCACCTCAGGGACCGGCCCTCCTGCCGCTCCGTC  
 TCGCCTGGGCCAGGCCGATGACTGCCAGCCCCAGGATCTCTCAGAGCCTCCGACTGGGTCAATTT  
 GAACTGCTCCTCAGCCGCCCTGACCGCCAGCCTCTGTGATTGGTCCGGAACCGGGCCAGGGCCGA  
 GTCCTGTCCGGAGTCCCCCATCACTTAGCGGAAAGCTTCTCTTCTGCCCAAGTCAGCCCCA  
 TGGACTCTGGGCCCTGGGCTGCATCCTCACCTACAGAGATGGCTTCAACGTCTCCATCATGTATAACCT  
 CACTGTTCTGGTCTGGAGCCCCAACTCCCTTGACAGTGTACGCTGGAGCAGGTTCCAGGGTGGGGCTG  
 CCCTGCCGCTGCCTGCTGGTGTGGGACCCGGTCTTTCCTACTGCCAAGTGGACTCCTCTGGGGGAG  
 GCCCTGACCTCCTGGTACTGGAGACAATGGCGACTTTACCCTTCGACTAGAGGATGTGAGCCAGGCCCA  
 GGCTGGGACCTACACCTGCCATATCCATCTGCAGAACAGCAGCTCAATGCCACTGTCACATTGGCAATC  
 ATCACAGTACTCCAAATCCTTTGGGTACCTGGATCCCTGGGAAGCTGCTTTGTGAGGTGACTCCAG  
 TATCTGGACAAGAAGCCTTTGTGTGGAGCTCTTGGACACCCATCCAGAGGAGTTTCTCAGGACCTTG  
 GCTGGAGGCACAGGAGGCCAGCTCCTTCCAGCCTTGGAATGCCAGCTGTACCAGGGGAGAGGCTT  
 CTTGGAGCAGCAGTGTACTTACAGAGCTGTCTAGCCAGGTGCCCAACGCTCTGGGAGAGCCCCAGGTG  
 CCCTCCAGCAGGCCACCTCCTGCTGTTTCTCATCCTTGGTGTCTTTCTGCTCCTTTTGGTACTGG  
 AGCCTTTGGCTTTCACCTTTGGAGAAGACAGTGGCGACCAAGACGATTTTCTGCCTTAGAGCAAGGGATT  
 CACCTCCGAGGCTCAGAGCAAGATAGAGGAGCTGGAGCAAGAACCGGAGCCGGAGCCGGAGCCGGAAC  
 CGGAGCCCGAGCCGAGCCGAGCCGGAGCAGCTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG220269 representing NM\_002286  
 Red=Cloning site Green=Tags(s)  
 MWEAQFLGLLFLQPLWVAPVKPLQPGAIEVPPVWAQEGAPAQLPCSPTIPLQDLSLLRRAGVTWQHQPDSG  
 PPAAPGPHPLAPGPHPAAPSSWGPRRRYTVLSVGPGLRSGRLPLQPRVQLDERGRQRGDFSLWLRPAR  
 RADAGEYRAAVHLRDRALSCRLRLRLGQASMTASPPGSLRASDWVILNCSFSRPDRPASVHWFNRNGQGR  
 YPVRESPHHHLAESFLFPQVSPMDSGPWGCILTYRDGFNVSIMYNLTVLGLPPTPLTVYAGASRVGL  
 PCRLPAGVGRSFLTAKWTPPGGPDLLVTGDNDFTLRLEDVSAQAGTYTCHIHLEQQLNATVTLAI  
 ITVTPKSFSGPSLGLKLLCEVTPVSGQERFVWSSLDTPSQRSFSGPWLEAQEAQLLSQPWQCQLYQGERL  
 LGAAVYFTELSPPGAQRSGRAPGALPAGHLLFLILGVL SLLLLVTGAFGFHLWRRQWRPRRFSALEQGI  
 HPPQAQSKIEELEQEPEPEPEPEPEPEPEPEPEPEQL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_002286

**ORF Size:** 1575 bp

**OTI Disclaimer:** 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](#)

**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:**

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\\_002286.6](#)

**RefSeq Size:** 1991 bp

**RefSeq ORF:** 1578 bp

**Locus ID:** 3902

**UniProt ID:** [P18627](#)

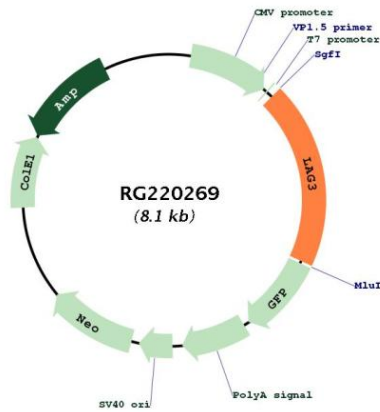
**Cytogenetics:** 12p13.31

**Domains:** ig, IG

**Protein Families:** Transmembrane

**Gene Summary:** 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]

**Product images:**



Circular map for RG220269