

Product datasheet for **RC220269**

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:	Myc-DDK
Symbol:	Lymphocyte Activation Gene 3
Synonyms:	CD223
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC220269 representing NM_002286
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTGGGAGGCTCAGTTCCTGGGCTTGGCTTTCTGCAGCGCTTGGGTGGCTCCAGTGAAGCCTCTCC
 AGCCAGGGGCTGAGGTCCCGTGGTGTGGGCCAGGAGGGGGCTCCTGCCAGCTCCCTGCAGCCCCAC
 AATCCCCCTCCAGGATCTCAGCCTTCTGCGAAGAGCAGGGGTCACTTGCCAGCATCAGCCAGACAGTGGC
 CCGCCCGTGCCGCCCGGCCATCCCCTGGCCCCGGCCCTCACCCGGCGGCCCTCCTCTGGGGG
 CCAGGCCCGCGCTACACGGTCTGAGCGTGGTCCCGAGGCTGCCAGCGGGAGGCTGCCCTGCA
 GCCCGCGTCCAGCTGGATGAGCGCGGCCGCCAGCGGGGACTTCTCGTATGGCTGCGCCAGCCCGG
 CGCGGGACGCCGCGAGTACCAGCGCCGGTGACCTCAGGGACCGGCCCTCCTGCCGCTCCGTC
 TCGCCTGGGCCAGGCTCGATGACTGCCAGCCCCCAGGATCTCTCAGAGCTCCGACTGGTCAATTT
 GAACTGCTCCTTACGCCCTGACCGCCAGCTCTGTGCATTGGTTCCGGAACCGGGCCAGGGCCGA
 GTCCCTGTCCGGAGTCCCCCATCACCCTTAGCGGAAAGCTTCTCCTTCTGCCCAAGTCAGCCCA
 TGGACTCTGGGCCTGGGCTGCATCCTCACCTACAGAGATGGCTTCAACGTCTCATCATGATAACCT
 CACTGTTCTGGGTCTGGAGCCCCAACTCCCTTACAGTGTACGCTGGAGCAGGTTCCAGGGTGGGGCTG
 CCCTGCCGCTGCTGTGGTGTGGGACCCGGTCTTTCCTACTGCCAAGTGGACTCCTCTGGGGGAG
 GCCCTGACCTCCTGGTACTGGAGACAATGGCGACTTTACCCTTCTGACTAGAGGATGTGAGCCAGGCCCA
 GGCTGGGACCTACACCTGCCATATCCATCTGCAGGAACAGCAGCTCAATGCCACTGTCACATTGGCAATC
 ATCAGAGTACTCCAAATCCTTTGGGTACCTGGATCCCTGGGAAGCTGCTTTGTGAGGTGACTCCAG
 TATCTGGACAAGAAGCCTTTGTGGAGCTCTCTGGACACCCATCCAGAGGAGTTTCTCAGGACTTGG
 GCTGGAGGCACAGGAGGCCAGCTCCTTCCAGCCTTGGAATGCCAGCTGTACCAGGGGAGAGGCTT
 CTTGGAGCAGAGTGTACTTACAGAGCTGTCTAGCCAGGTCGCCAACGCTCTGGGAGAGCCCCAGGTG
 CCCTCCAGCAGGCCACCTCCTGCTGTTTCTCATCCTGGTGTCTTTCTCTGCTCCTTTTGGTACTGG
 AGCCTTTGGCTTTCACCTTTGGAGAAGACAGTGGCGACCAAGACGATTTTCTGCCTTAGAGCAAGGATT
 CACCCTCCGAGGCTCAGAGCAAGATAGAGGAGCTGGAGCAAGAACCGGAGCCGGAGCCGGAGCCGGAAC
 CGGAGCCCCGAGCCGAGCCCAGCCGGAGCAGCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220269 representing NM_002286
 Red=Cloning site Green=Tags(s)

MWEAQFLGLLFLQPLWVAPVKPLQPGAEPVVWAQEGAPAQLPCSPITPLQDLSLLRRRAGVTWQHQPDSG
 PPAAPGHPPLAPGPHPAAPSSWGPRPRRYTVLSVGPGLRSGRLPLQPRVQLDERGRQGRDFSLWLRPAR
 RADAGEYRAAVHLRDRALSCRLRLRGQASMTASPPGSLRASDWVILNCSFSRPDRPASVHWFRNRQGR
 VPVRESPHHHLAESFLFLPQVSPMDSGPWGCILTYRDFNVSIMYNLTVLGLPPTPLTVYAGASRVGL
 PCRLPAGVGRSFLTAKWTPPGGPDLLVTGDNDFTLRLLEDVSAQAGTYTCHIHLQEQQLNATVTLAI
 ITVTPKSFSGPSLKKLLCEVTPVSGQERFVWSSLDTPSQRFSGPWLEAQAQLLSQPWQCQLYQGERL
 LGAAVYFTELSPPAQRSGRAGALPAGHLLFLILGVL SLLLLVTGAFGFHLWRRQWRPRRFSALEQGI
 HPPQAQSKIEELEQEPEPEPEPEPEPEPEPEPEL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2388_g09.zip

Restriction Sites:

SgfI-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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002286.6](#)

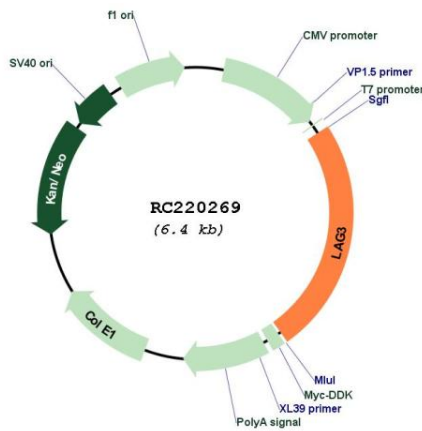
RefSeq Size: 1991 bp

RefSeq ORF: 1578 bp

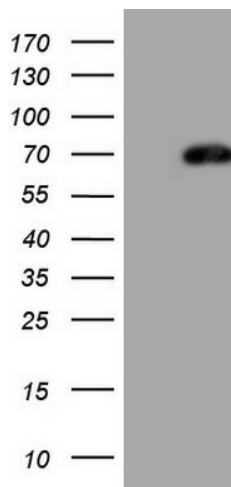
Locus ID: 3902

UniProt ID: [P18627](#)
 Cytogenetics: 12p13.31
 Domains: ig, IG
 Protein Families: Transmembrane
 MW: 57.45 kDa
 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]

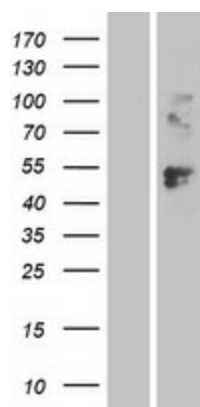
Product images:



Circular map for RC220269



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY LAG3 (Cat# RC220269, 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-LAG3 (Cat# [TA807082])(1:2000). Positive lysates [LY400828] (100ug) and [LC400828] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400828]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220269 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).