

## Product datasheet for **RG223627**

### KLRC3 (NM\_002261) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	KLRC3 (NM_002261) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KLRC3
Synonyms:	NKG2-E; NKG2E
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223627 representing NM_002261 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGTAAACAAAGAGGAACCTTCTCAGAAGTGAGTCTGGCCCAGGACCCAAAGTGGCAGCAAAGGAAAC  
CTAAAGGCAATAAAAGCTCCATTTAGGAACCGAACAGGAAATATTCCAAGTAGAATTAACCTTCAAAA  
TGCTTCTCTGAATCATCAAGGGATTGATAAAATATAGACTGCCAAGTTTACTGCCACCTCCAGAAAAG  
CTCACTGCCGAGGTCCTAGGAATCATTTCGATTGCTGATGGCCACTGTGTTAAAAACAATAGTTCTTA  
TTCTTTTCTGGAGCAGAACAATTTCTCCCGAATGCAAGAACCAGAAAGCACGTCATTGTGGCCATTG  
TCCTGAGGAGTGGATTACATATTCCAACAGTTGTTATTACATTGGTAAGGAAAGAAGAACTGGGAAGAG  
AGTTTGCAGGCCTGTGCTTCAAAGAACTCTTCTAGTCTGCTTTGTATAGATAATGAAGAAGAAATGAAAT  
TTCTGGCCAGCATTTTACCTTCCATGGATTGGTGTGTTTCGTAACAGCAGTCATCATCCATGGGTGAC  
AATAAATGGTTTGGCTTTCAAACATGAGATAAAAGACTCAGATCATGCTGAACGTAACGTGCAATGCTA  
CATGTACGTGGACTTATATCAGACCAGTGTGGATCTTCAAGAATCATTAGACGGGTTTCATCATGTTGA  
CCAGGCTGGTCTTGAATCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG223627 representing NM\_002261  
Red=Cloning site Green=Tags(s)

MSKQRGTFSEVSLAQDPKWQQRKPKGNKSSISGTEQEIFQVELNLQNASLNHQGIDKIYDCQGLLPPEK  
 LTAEVLGIICIVLMATVLTIVLIPFLEQNSSPNARTQKARHCGHCPEEWITYSNSCYIYIGKERRTWE  
 SLQACASKNSSLLCIDNEEEMKFLASILPSSWIGVFRNSSHHPWVTINGLAFKHEIKSDHAERNCAML  
 HVRGLISDQCSSRIIRRGFIMLTRLVLNS

TRTRPLE - GFP Tag - V

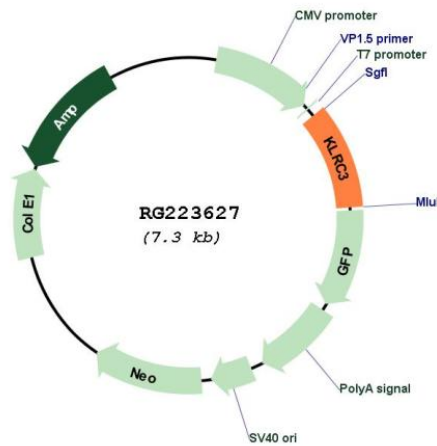
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_002261

**ORF Size:** 720 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](mailto: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](#)

**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\\_002261.3](#)

**RefSeq Size:** 1042 bp

**RefSeq ORF:** 723 bp

**Locus ID:** 3823

**UniProt ID:** [Q07444](#)

**Cytogenetics:** 12p13.2

**Protein Families:** Transmembrane

**Protein Pathways:** Antigen processing and presentation, Natural killer cell mediated cytotoxicity

**Gene Summary:**

Natural killer (NK) cells are lymphocytes that can mediate lysis of certain tumor cells and virus-infected cells without previous activation. They can also regulate specific humoral and cell-mediated immunity. NK cells preferentially express several calcium-dependent (C-type) lectins, which have been implicated in the regulation of NK cell function. KLRC3 is a member of the NKG2 group which are expressed primarily in natural killer (NK) cells and encodes a family of transmembrane proteins characterized by a type II membrane orientation (extracellular C terminus) and the presence of a C-type lectin domain. The NKG2 gene family is located within the NK complex, a region that contains several C-type lectin genes preferentially expressed on NK cells. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]