

## Product datasheet for **RC219604**

### **NKG2A (KLRC1) (NM\_213658) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NKG2A (KLRC1) (NM_213658) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NKG2A
Synonyms:	CD159A; NKG2; NKG2A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219604 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATAACCAAGGAGTAATCTACTCAGACCTGAATCTGCCCCAAACCCAAAGAGGCAGCAACGAAAAAC  
CTAAAGGCAATAAAAGCTCCATTTTAGCAACTGAACAGGAAATAACCTATGCGGAATTAACCTTCAAAA  
AGCTTCTCAGGATTTTCAAGGGAATGACAAAACCTATCACTGCAAAGATTTACCATCAGTCCAGAGAAG  
CTCATTGTTGGGATCCTGGGAATTATCTGTCTTATCTTAATGGCCTCTGTGGTAACGATAGTTGTTATTC  
CCTCTACATTAATACAGAGGCACAACAATCTTCCCTGAATACAAGAAGCTCAGAAAGCACGTCATTGTGG  
CCATTGTCTGAGGAGTGGATTACATATTTCCAACAGTTGTTACTACATTGGTAAGGAAAGAAGAACTTGG  
GAAGAGAGTTTGCTGGCCTGTACTTCGAAGAAGCTCCAGTCTGCTTCTATAGATAATGAAGAAGAAATGA  
AATTTCTGTCCATCATTTCAACATCCTCATGGATTGGTGTGTTTCGTAACAGCAGTCATCATCCATGGGT  
GACAATGAATGGTTTGGCTTTCAAACATGAGATAAAAGACTCAGATAATGCTGAACCTAACTGTGCAGTG  
CTACAAGTAAATCGACTTAAATCAGCCCAGTGTGGATCTTCAATAATATATCATTGTAAGCATAAGCTT

**ACGCGT**ACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC219604 protein sequence  
Red=Cloning site Green=Tags(s)

MDNQGVIYSDLNLPNPKRQQRKPKGNKSSILATEQEITYAELNLQKASQDFQGNDKTYHCKDLPSAPEK  
 LIVGILGIICLILMASVTVIVIPSTLIQRHNSSLNTRTQKARHCGHCPEEWITYSNSCYIIGKERRTW  
 EESLLACTSKNSSLLSIDNEEMKFLSII SPSSWIGVFRNSSHHPWVTMNGLAFKHEIKSDNAELNCAV  
 LQVNRLKSAQCGSSIIYHCKHKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6743\\_g06.zip](https://cdn.origene.com/chromatograms/mk6743_g06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_213658

**ORF Size:** 699 bp

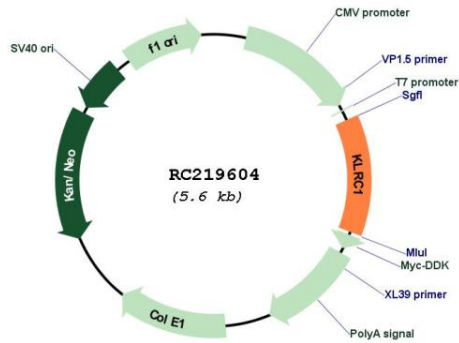
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

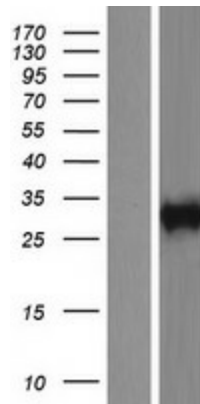
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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_213658.2</a>
<b>RefSeq Size:</b>	1617 bp
<b>RefSeq ORF:</b>	702 bp
<b>Locus ID:</b>	3821
<b>UniProt ID:</b>	<a href="#">P26715</a>
<b>Cytogenetics:</b>	12p13.2
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Antigen processing and presentation, Graft-versus-host disease, Natural killer cell mediated cytotoxicity
<b>MW:</b>	26.3 kDa
<b>Gene Summary:</b>	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. The protein encoded by this gene belongs to the killer cell lectin-like receptor family, also called NKG2 family, which is a group of transmembrane proteins preferentially expressed in NK cells. This family of proteins is characterized by the type II membrane orientation and the presence of a C-type lectin domain. This protein forms a complex with another family member, KLRD1/CD94, and has been implicated in the recognition of the MHC class I HLA-E molecules in NK cells. The genes of NKG2 family members form a killer cell lectin-like receptor gene cluster on chromosome 12. Multiple alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jan 2015]

Product images:



Circular map for RC219604



Western blot validation of overexpression lysate (Cat# [LY403736]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219604 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).