

Product datasheet for **RC211621**

NKG2A (KLRC1) (NM_213657) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NKG2A (KLRC1) (NM_213657) 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:	>RC211621 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATAACCAAGGAGTAATCTACTCAGACCTGAATCTGCCCCAAACCCAAAGAGGCAGCAACGAAAAAC
CTAAAGGCAATAAAAGCTCCATTTTAGCAACTGAACAGGAAATAACCTATGCGGAATTAACCTTCAAAA
AGCTTCTCAGGATTTTCAAGGGAATGACAAAACCTATCACTGCAAAGATTTACCATCAGCTCCAGAGAAG
CTCATTGTTGGGATCCTGGGAATTATCTGTCTTATCTTAATGGCCTCTGTGGTAACGATAGTTGTTATTC
CCTCACGTCATTGTGGCCATTGCCTGAGGAGTGGATTACATATTCCAACAGTTGTTACTACATTGGTAA
GGAAAGAAGAAGTGGGAAGAGAGTTTGCCTGGCCTGACTTCGAAGAAGTCCAGTCTGCTTCTATAGAT
AATGAAGAAGAAATGAAATTTCTGTCCATCATTTACCATCCTCATGGATTGGTGTGTTTCGTAACAGCA
GTCATCATCCATGGGTGACAATGAATGGTTTGGCTTTCAAACATGAGATAAAAGACTCAGATAATGCTGA
ACTTAAGTGTGCAGTCTACAAGTAAATCGACTTAAATCAGCCCAGTGTGGATCTTCAATAATATATCAT
TGTAAGCATAAGCTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC211621 protein sequence
Red=Cloning site Green=Tags(s)

MDNQGVISDLNLPNPKRQQRKPKGNKSSILATEQEITYAELNLQKASQDFQGNDKTYHCKDLPSAPEK
 LIVGILGIICLILMASVVTIVVIPSRLHCGHCPEEWITYNSCYIIGKERRTWEESELLACTSKNSSLLSID
 NEEEMKFLSIIISPSSWIGVFRNSSHHPWVTMNLAFKHEIKSDNAELNCAVLQVNRLLKSAQCGSSIIYH
 CKHKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6435_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_213657

ORF Size: 645 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_213657.2](#)

RefSeq Size: 1563 bp

RefSeq ORF: 648 bp

Locus ID: 3821

UniProt ID: [P26715](#)

Cytogenetics: 12p13.2

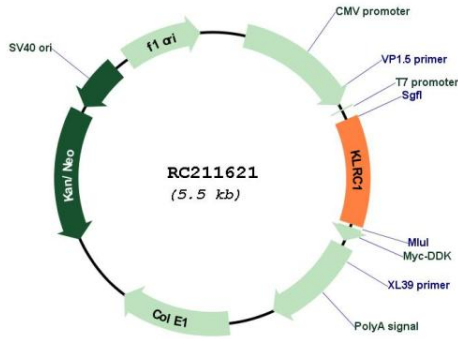
Protein Families: Transmembrane

Protein Pathways: Antigen processing and presentation, Graft-versus-host disease, Natural killer cell mediated cytotoxicity

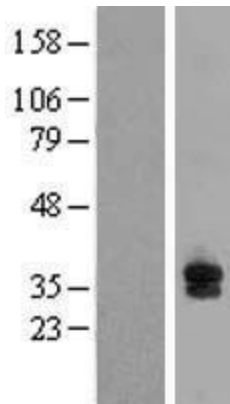
MW: 24.2 kDa

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. 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 RC211621



Western blot validation of overexpression lysate (Cat# [LY403735]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211621 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).