

## Product datasheet for **SC322611**

### **NKG2D (KLRK1) (NM\_007360) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	NKG2D (KLRK1) (NM_007360) Human Untagged Clone
Tag:	Tag Free
Symbol:	NKG2D
Synonyms:	CD314; D12S2489E; KLR; NKG2-D; NKG2D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for SC322611  
 TGAGGACATATCTAAATTTCTAGTTTTATAGAAGGCTTTTATCCACAAGAATCAAGATC  
 TTCCCTCTCTGAGCAGGAATCCTTTGTGCATTGAAGACTTTAGATTCTCTCTGCGGTAG  
 ACGTGCACTTATAAGTATTTGATGGGTGGATTCGTGGTCGGAGGTCTCGACACAGCTGG  
 GAGATGAGTGAATTTATAATTAACTTGGATCTGAAGAAGAGTGATTTTTCAACACGA  
 TGGCAAAAGCAAAGATGCCAGTAGTCAAAGCAAATGTAGAGAAAATGCATCTCCATTT  
 TTTTCTGCTGCTTCATCGCTGAGCCATGGGAATCCGTTTCATTATTATGGTAGCAATA  
 TGGAGTGTGTATTCCCTAAACTCATTATTCAACCAAGAAGTTCAAATCCCTTGACCGAA  
 AGTTACTGTGGCCATGTCCTAAAACTGGATATGTTACAAAAATAACTGCTACCAATTT  
 TTTGATGAGAGTAAAACTGGTATGAGAGCCAGGCTTCTGTATGTCTCAAAATGCCAGC  
 CTTCTGAAAGTACAGCAAAGAGGACCAGGATTTACTTAACTGGTGAAGTCATATCAT  
 TGGATGGGACTAGTACACATTCCAACAAATGGATCTTGGCAGTGGGAAGATGGCTCCATT  
 CTCTCACCAACCTACTAACAATAATTGAAATGCAGAAGGGAGACTGTGCACTCTATGCC  
 TCGAGCTTTAAAGGCTATATAGAAAAGTTCCTCACTCCAATACATACATCTGCATGCAA  
 AGGACTGTGTAAGATGATCAACCATCTCAATAAAAGCCAGGAACAGAGAAGAGATTACA  
 CCAGCGGTAACACTGCCAACCGAGACTAAAGGAAACAAACAAAAACAGGACAAAAATGACC  
 AAAGACTGTCAGATTTCTTAGACTCCACAGGACCAACCATAGAACAAATTTCACTGCAAA  
 CATGCATGATTCTCCAAGACAAAAGAAGAGAGATCCTAAAGGCAATTCAGATATCCCAA  
 GGCTGCCCTCTCCACCACAAGCCAGAGTGGATGGGCTGGGGGAGGGGTGCTGTTTTAAT  
 TTCTAAAGGTAGGACCAACCCAGGGGATCAGTGAAGGAAGAGAAGGCCAGCAGATCAG  
 TGAGAGTGCAACCCACCTCCACAGGAAATGCCTCATGGGCAGGGCCACAGCAGAGAG  
 ACACAGCATGGGCAGTGCCTCCCTGCCTGTGGGGTTCATGCTGCCACTTTTAATGGGTC  
 TCCACCCAACGGGGTCAGGGAGGTGGTGTGCCCTAGTGGCCATGATTATCTTAAAGG  
 CATTATTCTCCAGCCTTAAGATCTTAGGACGTTTCCTTTGCTATGATTTGACTTGCTTG  
 AGTCCCATGACTGTTTCTTCTCTCTTTCTTCTTTTGAATAGTAATATCCATCCTA  
 TGTTTGTCCCACTATTGTATTTTGAAGCACATAACTGTTTGGTTTCACAGGTTACAG  
 TTAAGAAGGAATTTGCCTCTGAATAAATAGAATCTTGAGTCTCATGCAAAAAAAAAA  
 AAAAAAAAAAAAAA

- Restriction Sites:** Please inquire
- ACCN:** NM\_007360
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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\\_007360.1](#), [NP\\_031386.1](#)

**RefSeq Size:** 1770 bp

**RefSeq ORF:** 651 bp

**Locus ID:** 22914

**UniProt ID:** [P26718](#)

**Cytogenetics:** 12p13.2

**Domains:** CLECT

**Protein Families:** Transmembrane

**Protein Pathways:** 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. The NKG2 gene family is located within the NK complex, a region that contains several C-type lectin genes preferentially expressed in NK cells. This gene encodes a member of the NKG2 family. The encoded transmembrane protein is characterized by a type II membrane orientation (has an extracellular C terminus) and the presence of a C-type lectin domain. It binds to a diverse family of ligands that include MHC class I chain-related A and B proteins and UL-16 binding proteins, where ligand-receptor interactions can result in the activation of NK and T cells. The surface expression of these ligands is important for the recognition of stressed cells by the immune system, and thus this protein and its ligands are therapeutic targets for the treatment of immune diseases and cancers. Read-through transcription exists between this gene and the upstream KLRC4 (killer cell lectin-like receptor subfamily C, member 4) family member in the same cluster. [provided by RefSeq, Dec 2010]