

Product datasheet for MR202802

Klrk1 (NM_033078) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Klrk1 (NM_033078) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Klrk1
Synonyms:	D6H12S2489E; NKG2-D; Nkg2d
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR202802 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCATTGATTCGTGATCGAAAGTCTCATCACTCAGAGATGAGCAAATGCCATAATTACGACCTCAAGC
CAGCAAAGTGGGATACTTCTCAAGAACAACAGAAACAAAGATTAGCACTAACTACCAGTCAACCTGGAGA
AAATGGTATCATAAGAGGAAGATACCCTATAGAAAACTCAAAATATCTCCAATGTTCTGTTGTTTCGAGTC
CTTGCTATAGCCTTGGCAATTCGATTCACCCTAACACATTGATGTGGCTTGCCATTTTCAAAGAGACGT
TTCAGCCAGTATTGTGCAACAAGGAAGTCCAGTTTCTCAAGAGAGGGCTACTGTGGCCATGCCCTAA
CAACTGGATATGTACAGAAACAACCTGTTACCAATTTTTAATGAAGAGAAAACCTGGAACCAGAGCCAA
GCTTCCTGTTTGTCTCAAAATCCAGCCTTCTGAAGATATACAGTAAAGAAGAACAGGATTTCTTAAAGC
TGGTAAAGTCCTATCACTGGATGGGACTGGTCCAGATCCCAGCAAATGGCTCCTGGCAGTGGGAAGATGG
CTCCTCTCTCATACAATCAGTAACTCTGGTGGAAATACCAAAGGATCCTGTGCTGTCTATGGCTCA
AGCTTTAAGGCTTACACAGAAGACTGTGCAAATCTAAACACGTACATCTGCATGAAAAGGGCGGTG

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR202802 protein sequence
 Red=Cloning site Green=Tags(s)

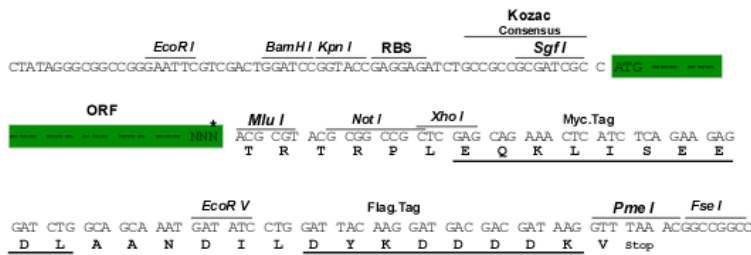
MALIRDRKSHHSEMSKCHNYDLKPAKWDTSQEQKQRLALTTSPGENGIIRGRYPTEKLIKISPMFVVRV
 LAIALAIRFTLNTLMWLAIFKETFPVLCNKEVPVSSREGYCGPCPNWICHNRNCYQFFNEEKTWNQSQ
 ASCLSQNSLLKIYSKEEQDFLKLVKSYHWMGLVQIPANGSWQWEDGSSLSYNQLTLVEIPKGSCAVYGS
 SFKAYTEDCANLNTYICKRAV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_033078

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).

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_033078.4](#)

RefSeq Size: 3272 bp

RefSeq ORF: 699 bp

Locus ID: 27007

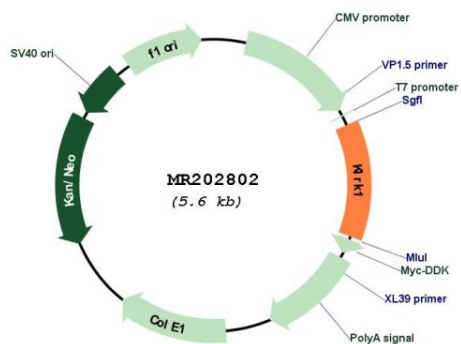
UniProt ID: [O54709](#)

Cytogenetics: 6 63.44 cM

MW: 26.7 kDa

Gene Summary: Function as an activating and costimulatory receptor involved in immunosurveillance upon binding to various cellular stress-inducible ligands displayed at the surface of autologous tumor cells and virus-infected cells. Provides both stimulatory and costimulatory innate immune responses on activated killer (NK) cells, leading to cytotoxic activity. Acts as a costimulatory receptor for T-cell receptor (TCR) in CD8(+) T-cell-mediated adaptive immune responses by amplifying T-cell activation. Stimulates perforin-mediated elimination of ligand-expressing tumor cells. Signaling involves calcium influx, culminating in the expression of TNF-alpha. Participates in NK cell-mediated bone marrow graft rejection. May play a regulatory role in differentiation and survival of NK cells. Binds to ligands belonging to various subfamilies of MHC class I-related glycoproteins including RAET1A, RAET1B, RAET1C, RAET1D, RAET1E, H60 and MULT1.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR202802