

Product datasheet for **MR209528**

Kars (BC027356) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kars (BC027356) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Kars
Synonyms:	AA589550; AL024334; AL033315; AL033367; D8Erttd698e; D8Wsu108e; LysRS; mKIAA0070
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209528 representing BC027356
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**

ATGTTGATGCAAGCTGCTGTCAGGCTTGTAGGGGGCCCTGCGCCAAACCTCATGGGCAGAATGGGTC
 AGAGGGAACCTTCGACTGGGCCACCTTGCTCCTTTACAACGCTCCACAAGGACCAGCCACTTTCTGATAG
 AAGAAAGTGAAGAGGCGTCTGAAAGCTGAGAAGAACTGGCAGAGAAGGAGGCCAAGCAGAAAGAG
 CTGAGTGAGAAACAGCTAAACCAGACTGCTCCGCTCCCAACCACACGGCTGACAATGGCGTGGTGCTG
 AGGAGGAGACTCTGGACCCAAATCAATACTACAAGATCCGAAGTCAAGCCGTCCAGCAGCTGAAGGTCAC
 TGGGGAGGATCCGTACCCACACAAGTTCACGTGGACATCTCACTCACTCAGTTCATCCAAGAATATAGT
 CACCTGCAGCCTGGGGACCCTGACTGATGTCACCTCAAAGTGGCAGGCCGCATCCACGCCAAGAGGG
 CCTCTGGAGGGAAGCTCATCTTCTATGACCTGCGAGGAGAGGGGGTCAAGTTACAAGTCATGGCCAACTC
 CAGGAATTACAAATCAGAGGAGGAATTTGTTTCATATCAATAACAACTGCGCCGGGAGACATAATTGGA
 GTTGAGGGCAATCCCGGGAAAACCAAGAAGGGCGAGCTGAGCATCATCCCCAGGAGATCAGCTGCTGT
 CCCCCTGCTTGCACATGCTGCCTCATCTTCACTTTGGCCTCAAAGACAAGGAAACACGGTATCGTCAAAG
 ATACTTGGACTTGATCCTGAACGACTTTGTGAGGCAGAAATTTATCGTCCGCTCTAAGATCATCACATAC
 ATAAGAAGTTTCTTGGATGAGCTGGGCTTCCTAGAGATCGAACTCCCATGATGAACATCATTCCCGGGG
 GAGCTGTGGCCAAAGCCTTTCATACCTATCACAATGAGCTGGACATGAAGTGTATATGAGAATTGCTCC
 AGAACTCTACCACAAGATGCTGGTGGTTGGTGGCATTGACCGGGTTTATGAAATTGGGCGCCAGTTCCGG
 AACGAAGGATTGATTTGACTCACAATCCTGAGTTCACCACCTGTGAGTTCTACATGGCCTATGCAGAT
 ATCATGACCTCATGGAGATCAGAGAGAAGATGCTGTCAGGGATGGTGAAGAGCATTACAGGCAGTTACAA
 GATCACCTACCACCCAGATGGGCCGGAAGGCCAAGCCTACGAGGTCGACTTCACCCACCCCTTCCGAAGA
 ATCAGCATGGTAGAAGAGCTTGAGAAAGCCCTAGGTGTGAAGCTGCCAGAAACAGTCTCTTTGAAACTG
 AAGAACTCGGAAAATTCTTGATGATATTTGTGTTGAAAAGCTGTTGAATGCCCCCACCTCGGACCAC
 AGCCAGGCTCCTTGATAAGCTCGTTGGCGAGTTCCTCGAAGTCACATGCATCAGCCCTACCTTCATCTGT
 GATCACCCACAGATCATGAGTCTTTGGCCAAATGGCACCGCTCCAAAGAGGGTCTCACGGAGCGCTTTG
 AGCTGTTTGTATGAAGAAGGAGATATGCAATGCCTATACTGAGCTGAATGACCCGTGCGGCAGAGGCA
 GCTGTTTGAGGAGCAGGCCAAGGCCAAGGCTGCCGGTATGACGAGGCCATGTTTCATAGACGAGAACTTC
 TGTACTGCCCTGGAATACGGGCTGCCTCCACAGCGGGCTGGGGCATGGGCATTGATCGGCTCACCATGT
 TTCTACCGATTCCAACAATATCAAGGAAGTACTTCTGTTTCTGCCATGAAGCCAGAGGACAAGAAGGA
 AACTGCAGCGACCACTGAAACCCAGAGAGCACAGAGGCCAGCCCTCTGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR209528 representing BC027356
 Red=Cloning site Green=Tags(s)

MLMQAAVRLVRGALRQTSWAEWGQRELRLGHLAPFTTLHKDQPLSDRRSELKRRLKAEEKLAKEAKQKE
 LSEKQLNQ TASAPNHTADNGVGAEEETLDPNQYYKIRSQAVQQLKVTGEDPYPHKFHVDISLTQFIQEYS
 HLQPGDHLTDVTLKVAGRIHAKRASGGKLIFYDLRGEVQLQVMANSRNYKSEEEFVHINNKLRRGDIIG
 VEGNPGKTKKGELSIIPQEITLLSPCLHMLPHLHFLGDKETRYRQRYLDLILNDFVRQKFIVRSKIITY
 IRSFLDELGFLEIETPMNIIIPGAVAKPFITYHNEIDMNL YMRIAPEL YHKML VVGGIDRVYEIGRQFR
 NEGIDLTHNPEFTTCEFYMAYADYHDLMEITEKMLSGMVKSITGSYKITYHPDGPEGQAYEVDFTPPFRR
 ISMVEELEKALGVKLPETSLFETEETRKLDDICVAKAVECPPPRTTARLLDKLVGFLEVTICISPTFIC
 DHPQIMSLAKWHRKEGLTERFELFVMKEICNAYTELNDPVRQRQLFEEQAKAKAAGDDEAMFIDENF
 CTALEYGLPPTAGWGMGIDRLTMFLTDSNNIKEVLLFPAMPKPEDKKETAATTETPESTEASPSV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: BC027356

ORF Size: 1872 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

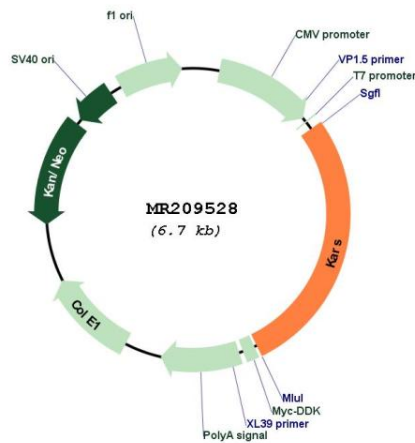
RefSeq: [BC027356.1](#)

RefSeq Size: 2205 bp

RefSeq ORF: 1874 bp

Locus ID:	85305
Cytogenetics:	8 58.27 cM
MW:	80.9 kDa
Gene Summary:	Catalyzes the specific attachment of an amino acid to its cognate tRNA in a 2 step reaction: the amino acid (AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA. When secreted, acts as a signaling molecule that induces immune response through the activation of monocyte/macrophages. Catalyzes the synthesis of the signaling molecule diadenosine tetraphosphate (Ap4A), and thereby mediates disruption of the complex between HINT1 and MITF and the concomitant activation of MITF transcriptional activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209528