

## Product datasheet for **MC218510**

### **Kars (BC027356) Mouse Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Kars (BC027356) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Kars
Synonyms:	AA589550; AL024334; AL033315; AL033367; D8Ertd698e; D8Wsu108e; LysRS; mKIAA0070
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >BC027356  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTGATGCAAGCTGCTGTCAGGCTTGTAGGGGGCCCTGCGCCAAACCTCATGGGCAGAATGGGGTC  
 AGAGGGAACCTCGACTGGGCCACCTTGCTCCTTTCACAACGCTCCACAAGGACCAGCCACTTTCTGATAG  
 AAGAAGTGAGCTGAAGAGGCGTCTGAAAGCTGAGAAGAACTGGCAGAGAAGGAGCCCAAGCAGAAAGAG  
 CTGAGTGAGAAACAGCTAAACCAGACTGCTTCCGCTCCCAACCACACGGCTGACAATGGCGTGGGTGCTG  
 AGGAGGAGACTCTGGACCCAAATCAATACTACAAGATCCGAAGTCAAGCCGTCCAGCAGCTGAAGGTCAC  
 TGGGGAGGATCCGTACCCACACAAGTCCACGTGGACATCTCACTCACTCAGTTCATCCAAGAATATAGT  
 CACCTGCAGCCTGGGGACCCTGACTGATGTCACCCTCAAAGTGGCAGGCCGCATCCACGCCAAGAGGG  
 CCTCTGGAGGGAAGCTCATCTTCTATGACCTGCGAGGAGAGGGGGTCAAGTTACAAGTCATGGCCAACTC  
 CAGGAATTACAAATCAGAGGAGGAATTTGTTTCATATCAATAACAACTGCGCCGGGGAGACATAATTGGA  
 GTTGAGGGCAATCCCGGGAAAACCAAGAAGGGCGAGCTGAGCATCATCCCCAGGAGATCAGCTGCTGT  
 CCCCCTGCTTGACATGCTGCCTCATCTTCACTTTGGCCTCAAAGACAAGGAAACACGGTATCGTCAAAG  
 ATACTTGGACTTGATCCTGAACGACTTTGTGAGGCAGAAATTTATCGTCCGCTCTAAGATCATCACATAC  
 ATAAGAAGTTTCTTGGATGAGCTGGGCTTCTAGAGATCGAACTCCCATGATGAACATCATTCCCGGGG  
 GAGCTGTGGCCAAAGCCTTTCATCACCTATCACAATGAGCTGGACATGAATTGTATATGAGAATTGCTCC  
 AGAACTTACCACAAGATGCTGGTGGTTGGTGGCATTGACCGGGTTTATGAAATTGGGCGCCAGTTCCGG  
 AACGAAGGATTGATTTGACTCACAACTCTGAGTTCACCACCTGTGAGTCTACATGGCCTATGCAGACT  
 ATCATGACCTCATGGAGATCACAGAGAAGATGCTGTCAGGGATGGTGAAGAGCATTACAGGCAGTTACAA  
 GATCACCTACCACCCAGATGGGCCGGAAGGCCAAGCCTACGAGGTCGACTTCACCCACCCCTCCGAAGA  
 ATCAGCATGGTAGAAGAGCTTGAGAAAGCCCTAGGTGTGAAGCTGCCAGAAACCAGTCTCTTTGAAACTG  
 AAGAACTCGGAAAATTCTTGATGATATTTGTGTTGCAAAGCTGTTGAATGCCCCACCTCGGACCAC  
 AGCCAGGCTCCTTGATAAGCTCGTTGGCGAGTTCCTCGAAGTCACATGCATCAGCCCTACCTTCATCTGT  
 GATCACCCACAGATCATGAGTCTTTGGCCAAATGGCACCGCTCCAAAGAGGGTCTCACGGAGCGCTTTG  
 AGCTGTTTGTATGAAGAAGGAGATATGCAATGCCTATACTGAGCTGAATGACCCCGTCCGGCAGAGGCA  
 GCTGTTTGAGGAGCAGGCCAAGGCCAAGGCTGCCGGTATGACGAGGCCATGTTTCATAGACGAGAACTTC  
 TGTACTGCCCTGGAATACGGGCTGCCTCCACAGCGGGCTGGGGCATGGGCATTGATCGGCTCACCATGT  
 TTCTACCGATTCCAACAATATCAAGGAAGTACTTCTGTTTCTGCCATGAAGCCAGAGGACAAGAAGGA  
 AACTGCAGCGACCACTGAAACCCAGAGAGCACAGAGGCCAGCCCTCTGTCTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** BC027356  
**Insert Size:** 1875 bp  
**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).  
**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:** [BC027356](#), [AAH27356](#)

**RefSeq Size:** 2205 bp

**RefSeq ORF:** 1874 bp

**Locus ID:** 85305

**Cytogenetics:** 8 58.27 cM

**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]