

## Product datasheet for **MR209875**

### **Alkbh8 (NM\_026303) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Alkbh8 (NM_026303) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alkbh8
Synonyms:	4930562C03Rik; 8030431D03Rik; 9430088N01Rik; Abh8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR209875 representing NM\_026303  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAATATCAATCATAAAGGTGTTTTGAAACTCACTAAAATGAAAAGAAGTTCTTAAGGAAACAGAGTA  
 AAGCCAGGCATGTGTTGCTGAAACATGAAGGCATCCAAGCAGTGTCTTATCCCACTCAGAGCCTGGTTAT  
 TGCCAATGGTGGTCTGGTAATGGCGTGAGTAGGAAACAAGTCTTTGACTTTGGAGAAATGTGGACCT  
 GTGGAAGCTCTCCTCATGCCACCTAATAAGCCATATGCATTTGTAATATTCAAAATATTGAAGAATCCA  
 AGAAAGCATATTTTACCCTCAATGAAAAAGAAATCATTGATGATTTGGGCAGAGATCTTTCTGTACTT  
 GAATTTTGTGAAAAAGCACAATGAAAAACATGGGCCTGAAGCCTTACCTCCAGGCCTCTTGGTGGTA  
 GAAGAAATTTTCTTCTGAGGAGGAGAAAAAGCTTCTGGAGAGTGTGAATTGGACAGAAGATACAGGCA  
 ATCAGAATTTTCAAAGTCCTTAAAACACAGAAGAGTGAACATTTTGGCTATGAATTTCACTATGAGAG  
 CAACACTGTGGATAAAGACAAGCCCTTACCTGGGGGTCTTCTGAGGTTTGCAGTAGCATTGGGAGAAG  
 TTGTTGAAAAGAAGTTATATTAACATAAACCAGACCAGTTGACCATAAAATCAATATGAACCTGGGCATG  
 GAATTCCTGCCCATATTGACACGCATTCTGCATTTGAAGATGAGATTATTTCTCTCAGTTTGGGGTCAGC  
 GATTGTTATGGATTTCAAGCATCCAGAGGGTGTACAGTACAAGTTATGTTACCTCGTGGAGTTTGGCTG  
 GTGATGACAGGAGAATCTAGATACCTTTGGACTCATGGAATTACACCTCGAAAATTTGATACCGTCCAAG  
 CGTCTGAGCAATTTAAAGGGGGAATAATCACCAGTGACATTGGAGACTTGACTTTAAGCAAGAGGGGAAT  
 GCGCACATCCTTTACGTTTAGAAAAGTGAGGGCAATGCCCTGCAATTGTAGTTACTCCTCAGTCTGCGAC  
 AGACAAAGGAAGGCCACACCTCCATCCCTTACAGAGAGCAGTAAAGAAGCATTGGAGTTAGAGCAAAAGC  
 ATGTCCATCAAGTGTACAATGAGATTGCAAGTCACTTCAGCAGCACAAGACATAGCCCATGGCCACGCAT  
 AGTAGAGTTCTGAAAGCTTTGCCAAGTGGTCCATAGTGGCAGATATCGGATGTGGAAATGAAAAATAC  
 CTTGGCATCAACAAGGACTTATATGATTGGGTGTGATCGTAGCCAGAACCCTTGTGGACATTTGTAGAG  
 AGAGGCAGTTCAGGCCTTAGTCTGCGATGCGCTGGCTGTTCTGTGAGAAGTGGGTCTTGTGATGCTTG  
 CATCTCTATTGCCGTCATTCACCCTTTGCAACTGCAGAGCGCAGAGTGGAAAGCTCTCAAGAAGCTTACC  
 CGTCTCCTGAGACCTGGTGGCAGGCCCTCATTATGTCTGGCAATGGAACAAGAGTATAAAAATCAGA  
 AGTCCAAGTATCTTAGAGGAAAGAGAATTAGCCAAGGAGATAAAGATGAGCTAACAGTGCCACATCTAC  
 GGAAGAATTTCTAGTAAATCAAACGCTGAGGGGGTCAATGAAGACCCAGCATTGTCTGCAACTCCAGT  
 AGTATACCAAGGAAGAAGAGTATAAGTCAAGGAAAGTTCCTAATTCTGAACTCCCTATTCATATAAATA  
 GGACCTGCTTTCAATCCCAAGATGTGCTGGTCCCTGGCACCTAAAAGAAACCCCTGGTAAAGACAAAGC  
 TATTGAACCATCTGGTGTAGCAGGATGTCTGACCCAAGTCTGTGTTTCATCGTTATTACCATGTTTTTC  
 TGTGATGGAGAATTGGAAGCTTCATGCCAGGCTGTGGGTGATGTTAGCATTCTGCAGAGCTATTACGATC  
 AAGGGAATTGGTGTGTTTCTTCAAAGGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209875 representing NM\_026303  
 Red=Cloning site Green=Tags(s)

MNINHKGVLLKTKMEKKFLRKQSKARHVLLKHEGIQAVSYPTQSLVIANGGLGNGVSRKQLLLTLEKCGP  
 VEALLMPPNPKPYAFVIFQTIIEESKKAYFTLNGKEIIDDLGQKIFLYLNFVEKAQWKNMGLEALPPGLLV  
 EEIISSEEEKLLESVNWTEDTGNQNFQRSLKHRRVKHFGEYEFHYESNTVDKDKPLPGLPEVCSILEK  
 LLKEGYIKHKPDQLTINQYEPGHGIPAHIDTHSAFEDEIISLSLGSIAIVMDFKHPEGVTQVYMLPRRSL  
 VMTGESRYLWTHGITPRKFDTVQASEQFKGGIITSDIGDLTLSKRGMRTSFTFRKVRMPNCNSYSSVCD  
 RQRKATPPSLTESSKEALELEQKHVHQVYNEIASHFSSTRHSPWPRIVEFLKALPSGSIVADIGCGNGKY  
 LGINKDLYMIGCDRSQNLVDICRERQFQALVCDALAVPVRSGSCDACISIAVIHHFATAERRVEALQELA  
 RLLRPGGQALIYVWAMEQEYKNQKSKYLRGKRISQGDKDELNSATSTEEFLVNQTPEGVNEDPALSVNSS  
 SITKEEEYKSRKVPNSELPIHINRTCFHSQDVLVPWHLKRNP GKDKAIEPSGVAGCPDPSPVFHRYYHV  
 CDGELEASCQAVGDVSIILQSYDQGNWCVVLQKV

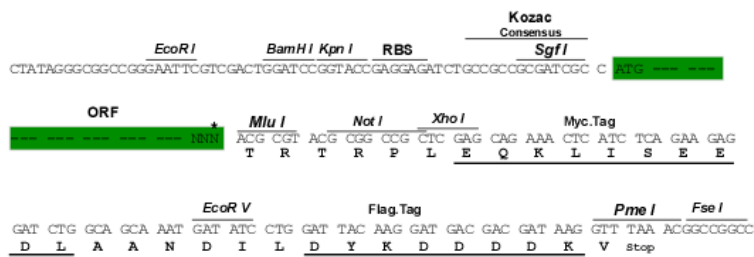
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9077\\_g10.zip](https://cdn.origene.com/chromatograms/mm9077_g10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_026303

**ORF Size:** 1992 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\\_026303.1](#), [NP\\_080579.1](#)

**RefSeq Size:** 2300 bp

**RefSeq ORF:** 1995 bp

**Locus ID:** 67667

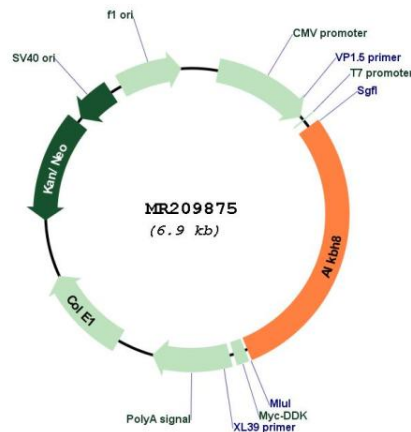
**UniProt ID:** [Q80Y20](#)

**Cytogenetics:** 9 A1

**MW:** 74.8 kDa

**Gene Summary:** Catalyzes the methylation of 5-carboxymethyl uridine to 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in tRNA via its methyltransferase domain (PubMed:20123966). Catalyzes the last step in the formation of 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in target tRNA (PubMed:20123966). Has a preference for tRNA(Arg) and tRNA(Glu), and does not bind tRNA(Lys) (By similarity). Binds tRNA and catalyzes the iron and alpha-ketoglutarate dependent hydroxylation of 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in tRNA via its dioxygenase domain, giving rise to 5-(S)-methoxycarbonylhydroxymethyluridine; has a preference for tRNA(Gly) (PubMed:20583019). Required for normal survival after DNA damage (By similarity). May inhibit apoptosis and promote cell survival and angiogenesis (By similarity).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR209875