

## Product datasheet for **MR202335**

### Alkbh7 (BC029677) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Alkbh7 (BC029677) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alkbh7
Synonyms:	2310045B01Rik; 2510008E23Rik; Abh7; Spata11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR202335 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**

ATGCGGTTGCTTTCTGGGTGCGCCTGGGTGCGCGGCTCAGACTCTGCCGTGCTGGGCCGCTGCGTGATG  
 AGGCCGTGGTGATCCAGGCTTCCTGAGCCAGGAGGAGGAGACACGCTAACACGCGAACTGGAGCCCCA  
 GCTGCGGCGCCGCGCTACGAGTACGACCACTGGGACGCGCCATCCATGGCTTCAGGGAGACAGAGAAA  
 TCCTGCTGGTCTGATGCAAGCCAGGTATCCTGCAGCGGGTTCGGGCGGCTGCATTGGTCTGACCAGA  
 GCCTGCTATCCCCAGTACATGTGTTGGACCTGGAACCTCGGGGCTACATCAAGCCTCATGTTGACAGTGT  
 CAAGTTCTGTGGATCTACCATTGCTGGCCTTCCCTGTTGCTCCAAGTGTATGAAGCTGGTGATACA  
 CAGGAACCTGAGCAGTGGCTGGAACCTGTTGCTGGAGCCAGGGTCTCTATATCTTAAGGGGTTACGCC  
 GATATGACTTCTCCCATGAGATCCTTAGAGATGAAGAATCATTTTTGGGGAGACCGGGTTCGCCGGG  
 CCGACGCATCTCAGTGATTTGCCGCTCCCTCCCTGAGGGGATGGGGCCAGGAAGGCCAGAAGAGCCACCT  
 CCAGCCTGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA


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**Protein Sequence:** >MR202335 protein sequence  
 Red=Cloning site Green=Tags(s)

MRLLSGCAWVRGSDSAVLGRLRDEAVVHPGFLSQEEEDLTRELEPQLRRRRYEYDHWDAAIHGFRETEK  
 SCWSDASQVILQVRAAAFGPDQSLLSPVHVLDEPRGYIKPHVDSVKFCGSTIAGLSLLSPSVMKLVHT  
 QEPEQWLELLLEPGSLYILRGSARYDFSHEILRDEESFFGEHRVPRGRRISVICRSLPEGMGPRPEEPP  
 PAC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** BC029677

**ORF Size:** 639 bp

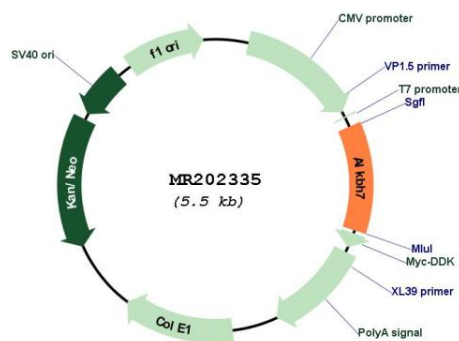
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">BC029677</a></u> , <u><a href="#">AAH29677</a></u>
<b>RefSeq Size:</b>	718 bp
<b>RefSeq ORF:</b>	641 bp
<b>Locus ID:</b>	66400
<b>Cytogenetics:</b>	17 D
<b>MW:</b>	24.1 kDa
<b>Gene Summary:</b>	May function as protein hydroxylase; can catalyze auto-hydroxylation at Leu-110 (in vitro), but this activity may be due to the absence of the true substrate. Required to induce programmed necrosis in response to DNA damage caused by cytotoxic alkylating agents. Acts by triggering the collapse of mitochondrial membrane potential and loss of mitochondrial function that leads to energy depletion and cell death. ALKBH7-mediated necrosis is probably required to prevent the accumulation of cells with DNA damage. Does not display DNA demethylase activity (By similarity). Involved in fatty acid metabolism.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR202335