

## Product datasheet for **MG203896**

### Alkbh3 (NM\_026944) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Alkbh3 (NM_026944) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Alkbh3
Synonyms:	1700108H04Rik; 1810020C19Rik; Abh3; mABH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG203896 representing NM_026944 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGACAAGAGACAGCGAGCCCGAGTGCAGGGAGGCTGGGCTACACCTACCAAGAGCCAGTCTGCTA  
CTCAGCCAGCTTCCCCTGCTAGGAGCCGTCTTCCCAGACCGGGGCCAGCCTGGAGGAGCAAGGAACA  
GCAGCAATGTGACCGACAATTTGTGTTCAAAGAACCTCAGCTGGTTGCCGTGCAGCCCCAGAACCAGA  
GTGATTGACAGGGAGGGTGTGTATGAAATCAGCCTGTCACCTACTGGTGTCTAGGGTGTGCTTATATC  
CTGGCTTTGTGGACTTGAAGGAAGCTGACTGGATCTTGGAGCAGCTTTGTAAGGATGTCCCCTGAAACA  
GAGGATGGGCATCAGAGAGGATGTAACCTATCCGCAACCAAGACTTACAGCATGGTATGGAGAGCTTCT  
TACACTTACTCGAGAATCACTATGGAACCAATCCTCACTGGCTTCTGTGCTGTGGACTCTGAAGACC  
GCATTGAAGAGAACACCAGCCACACCTTCAACTCCTTGCTGTGTAATTTTACCGGGATGAGAAGGACAG  
TGTGGACTGGCACAGCGACGATGAACCATCCCTGGGGAGCTGCCCGTCATTGCTTCCCTCAGTTTTGGT  
GCCACTCGGACTTTTGAGATGAGGAAGAAGCCCCACCTGAAGAAAAATGGAGACTATACATATGTGGAGA  
GAGTGAAGATACCATTGGATCACGGGACCTTGTAATCATGGAAGGAGCCACACAAGCCGACTGGCAGCA  
CCGAGTGCCCAAGGAATACCCTCCAGACAACCGAGAGTAACTTAACCTTTCGGACCGTTTATCCAGAC  
CCAAGAGGAGCCCTCGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG203896 representing NM\_026944  
 Red=Cloning site Green=Tags(s)

MEDKRQARVQGGWATPTKSQSATQPASPARSRLSQTAGPAWRSKEQQQCDRQFVFKEPQLVVRAAPEPR  
 VIDREGVYEISL SPTGVS RVCL YPGFVDLKEADWILEQLCKDVPWKQRMGIREDTVYPQRLTAWYGELP  
 YTYSRITMEPNPHWLPVLWTLKSRIEENTSHTFNSLLCNFYRDEKDSVDWHSDDPEPSLGSCPVIASLSFG  
 ATRTFEMRKKPPPPEENGDYTYVERVKIPLDHGTL LIMEGATQADWQHRVPKEYHSRQPRVNLTFRTVYYP  
 PRGAPR

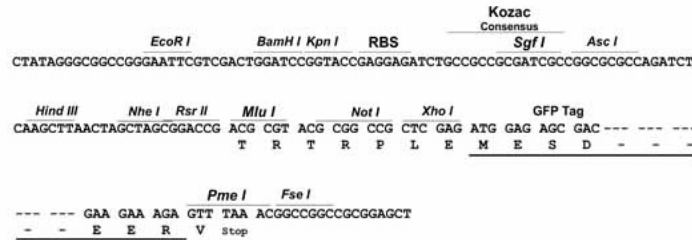
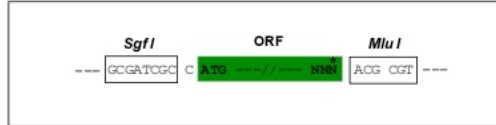
TRTRPLE - GFP Tag - V

**Restriction Sites:**

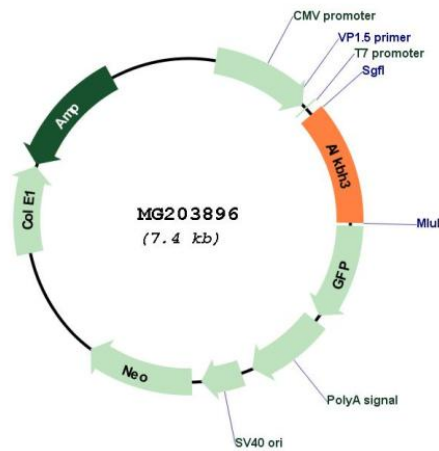
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_026944

**ORF Size:** 858 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>RefSeq:</b>	<a href="#">NM_026944.1</a> , <a href="#">NP_081220.1</a>
<b>RefSeq Size:</b>	1247 bp
<b>RefSeq ORF:</b>	861 bp
<b>Locus ID:</b>	69113
<b>UniProt ID:</b>	<a href="#">Q8K1E6</a>
<b>Cytogenetics:</b>	2 E1
<b>Gene Summary:</b>	Dioxygenase that mediates demethylation of DNA and RNA containing 1-methyladenosine (m1A) (By similarity). Repairs alkylated DNA containing 1-methyladenosine (m1A) and 3-methylcytosine (m3C) by oxidative demethylation (PubMed:16174769). Has a strong preference for single-stranded DNA (PubMed:16174769). Able to process alkylated m3C within double-stranded regions via its interaction with ASCC3, which promotes DNA unwinding to generate single-stranded substrate needed for ALKBH3. Also acts on RNA. Demethylates N(1)-methyladenosine (m1A) RNA, an epigenetic internal modification of messenger RNAs (mRNAs) highly enriched within 5'-untranslated regions (UTRs) and in the vicinity of start codons. Requires molecular oxygen, alpha-ketoglutarate and iron (By similarity).[UniProtKB/Swiss-Prot Function]