

Product datasheet for **MC205847**

Alkbh3 (NM_026944) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alkbh3 (NM_026944) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Alkbh3
Synonyms:	1700108H04Rik; 1810020C19Rik; Abh3; mABH3
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC018196

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GACGGCTGATTAGGGTCGTGTCGGGACCTCTGCTCAGGGCCCAGCCAGGTAGCCATCCCTTGGTCTGAAT
GGGGAATGAAATCTTCTGACATCTCAGAACAGAACGCTTTTTCTCACCATGGAGGACAAGAGACAGCGA
GCCCCAGTGCAGGAGGCTGGGCTACACCTACCAAGAGCCAGTCTGCTACTCAGCCAGCTTCCCCTGCTA
GGAGCCGTCTTTCCAGACCCGCGGGGCCAGCCTGGAGGAGCAAGGAACAGCAGCAATGTGACCGACAATT
TGTGTTCAAAGAACCTCAGCTGGTTGTCCGTGCAGCCCCAGAACCAGAGTGATTGACAGGGAGGGTGTG
TATGAAATCAGCCTGTCACCTACTGGTGTGCTAGGGTGTGCTTATATCCTGGCTTTGTGGACTTGAAGG
AAGCTGACTGGATCTTGGAGCAGCTTTGTAAGGATGTCCCTGGAACAGAGGATGGGCATCAGAGAGGA
TGTAACCTATCCGCAACCAAGACTTACAGCATGGTATGGAGAGCTTCTTACACTTACTCGAGAATCACT
ATGGAACCAAATCCTCACTGGCTTCTGTGCTGTGGACTCTGAAGAGCCGATTGAAGAGAACACCAGCC
ACACCTTCAACTCCTTGTGTGTAATTTTTACCGGGATGAGAAGGACAGTGTGGACTGGCACAGCGACGA
TGAACCATCCCTGGGAGCTGCCCGTCAATTGCTTCCCTCAGTTTTGGTGCCACTCGGACTTTTGAGATG
AGGAAGAAGCCCCACCTGAAGAAAATGGAGACTATACATATGTGGAGAGAGTGAAGATACCATTGGATC
ACGGGACCTTGCTAATCATGGAAGGAGCCACACAAGCCGACTGGCAGCACCGAGTGCCCAAGGAATACCA
CTCCAGACAACCGAGAGTAACTTAACTTTTCGGACCGTTTATCCAGACCCAAGAGGAGCCCTCGGTGA
CACTTCTACAGAGTTACCACTGAGGGGAGGGCTATGCACCTAACAGCCCCCTCCCATCTCCCGCAAGCAC
TTCCGTGATGTGGCTGTTCAAGAAAGCGTGGTGTGTTGCTTCTCAGGTTCTACTCCTCCTGAATGAGAGCTG
CCAGCAGTCACTTGTCAACATGTCTACTACAGGAACACTTACTTTGAGACAAATCTCTAAATCAAGGT
TATCATTAAGCAAATTAATAATTTGCTCTGGCTGTACTCACAAAAAAAAAAAAAAAAAAAA

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Restriction Sites:	EcoRI-NotI
ACCN:	NM_026944
Insert Size:	861 bp



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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:	<ol style="list-style-type: none">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:	BC018196 , AAH18196
RefSeq Size:	1247 bp
RefSeq ORF:	861 bp
Locus ID:	69113
UniProt ID:	Q8K1E6
Cytogenetics:	2 E1
Gene Summary:	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]