

Product datasheet for **SC120650**

ALKBH8 (NM_138775) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALKBH8 (NM_138775) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALKBH8
Synonyms:	ABH8; MRT71; TRM9; TRMT9; TRMT9A
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF: >NCBI ORF sequence for NM_138775, the custom clone sequence may differ by one or more nucleotides

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ATGGACAGCAACCATCAAAGTAATTACAACTCAGTAAAAGTGAAGAAGTTCTTAAGGAAACAGATTA
AAGCCAAGCATACTTTGCTGAGACATGAAGGCATTGAGACAGTATCCTATGCCACTCAGAGCCTGGTTGT
TGCCAATGGTGGTTTGGGTAATGGTGTGAGTCGGAACCAGCTGCTCCCGTTTTAGAGAAATGTGGACTG
GTGGATGCTCTTAATGCCACCTAACAAAGCCGTAATCTTTGCAAGATACAGAAGTACAGAAGAATCTA
AGAGAGCCTATGTTACCCTCAATGGAAAAGAAGTAGTGGATGATTTAGGACAAAAGATCACTCTGTATTT
GAATTTTGTGGAAAAAGTGCAAGTGAAGGAGTTGAGGCCTCAAGCCTTACCACCAGGACTCATGGTAGTA
GAAGAAAATAATTTCTTCTGAGGAGGAGAAAAATGCTTTTGGAAAAGTGTGATTGGACAGAAGATACAGACA
ATCAAACTCTCAAAAATCCTTAAAACACAGAAGAGTAAAGCATTGTTGTTATGAGTTCCTACTATGAGAA
CAACAATGTAGATAAAGATAAGCCATTATCTGGGGTCTTCTGACATTTGTGAAAGCTTTTGGAGAAA
TGTTGAGGAAAGGTTACATTAACATAAACCTGATCAAATGACCATAAATCAGTATGAACCTGGGCAAG
GAATCCCGCTCATATTGATACACATTCGCTTTTGGAGTATGAGATCGTTTCTCTCAGTTTGGGGTCTGAG
GATTGTCATGGATTTTAAAGCACCAGATGGCATTGCAAGTCCAGTTATGTTGCCTCGTGGAGTTTGGCTG
GTGATGACAGGAGAACTAGATACCTTTGGACCATGGAATCACGTGCAGAAAATTTGATCTGTTCAAG
CATCTGAGAGTCTTAAAAGTGAATTAACACAGTGTGTTGGAGACTTAACTTTAAGCAAGAGGGGACT
ACGAACATCATTTACATTTAGGAAAAGTGAAGCAACACCTTGAAGTGTAGTTACCCGTTGGTCTGTGAT
AGCCAGAGGAAAGAGACTCCCCCTCATTTCCAGAGAGTGATAAAGAAGCCTCACGGCTGGAGCAAGAGT
ACGTCCATCAGGTTTATGAAGAGATTGCTGGGCACTTCAGCAGCAAGACATACCCCTTGGCCGCACAT
TGTGGAGTTTGAAGGCTTTGCCAAGTGGTCAATAGTGGCTGATTTGGATGTGGTAAATGGAAGTAT
CTTGGCATCAATAAGGAGTTATATATGATTGGTTGTGATCGTAGCCAAAACCTTGTGGCAATTTGAGAG
AGAGGCAATTTACGGCTTTTGTCTGTGATGCATTGGCAGTACCAGTCCGCAAGTGGGTCTTGTGATGCCTG
CATCTCCATTGCTGTTATTCATCATTTTGAACAGCAGAGCGTAGAGTGGCAGCTCTCCAAGAAATGTT
CGACTCTGAGACCAGGTGGGAAGGCACTCATTTATGTCTGGGCAATGGAACAAGAATAATAAGCAGA
AGTCCAAGTATCTTAGAGGAAACAGAAATAGCCAAGGAAAGAAAGAGGAGATGAACAGTGTACCTCAGT
GCAGAGGTCACCTGTGGAGCAAATGCGTGACATGGGCACTCGAGACTCGGCATCTTCTGTCCCCGCATT
AATGACTCTCAGGAAGGAGGATGAATTAAGGCAAGTTTCTAATTCCAAGCTGCCTGTTTATGTTAACA
GGACTTCTTTTATTCTCAAGATGTACTGGTCCCTGGCACCTTAAAGGAAATCTGATAAAGGCAAAAC
TGTGAGCCATTTGGTCCATAGGATCCCAGGACCAAGTCTGTGTTTTCATCGTTACTACCATGTGTTT
CGTGAGGAGAACTGGAAGGTGCCTGCAGGACTGTGAGTGTGATGTCAGAATTCTGCAAGCTACTACGATC
AAGGAACTGGTGTGTGATTCTTCAAAGGCCTGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_138775 unedited

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ACTTATATAGGGCGGCCGGAATTCGCACGAGGCCGCGCCAGGGGAGATGGCGTGCAAG
TATCCGCTGCGGTGTTCTGGTGTAGAGTGGAGAGGCTGGCAAAGAAGAAGGCACACGCA
TGGTGAGAATCCGGCCTGAGCCGAAGCGGAGTTTGCTATGGACAGCAACCATCAAAGTAA
TTACAACTCAGTAAAAGTGAAGAAGTTCTTAAAGAAACAGATTAAGCCAAGCATACT
TTTGCTGAGACATGAAGGCATTGAGACAGTATCCTATGCCACTCAGAGCCTGGTTGTTGC
CAATGGTGGTTTGGGTAATGGTGTGAGTCGGAACCAGCTGCTCCCGTTTTAGAGAAATG
TGGACTGGTGGATGCTCTCTTAATGCCACCTAACAAAGCCGTAATCTTTGCAAGATACAG
AACTACAGAAGAATCTAAGAGAGCCTATGTTACCCTCAATGGAAGAAGTAGTGGATGA
TTTAGGACAAAAGATCACTCTGTATTTGAATTTTGTGGAAAAAGTGCAGTGAAGGAGTT
GAGGCCTCAAGCCTTACCACCAGGACTCATGGTAGTAGAAGAAATAATTTCTTCTGAGGA
GGAGAAAATGCTTTTGGAAAAGTGTGATTGGACAGAAGATACAGACAATCAAACTCTCA
AAAATCCTTAAAACACAGAAGAGTAAAGCATTGTTGTTATGAGTCCACTATGAGAACA
CAATGTAGATAAAGATAAGCCATTATCTGGGGTCTTCTGACATTTGTGAAAGCTTTTGG
GGAGAATGTTGAAAGTTACATTAACATAACCTGATCAATGACCTAAATCAGTTGAA
CCTGGGACAGGAATCCGCTCTT
    
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Restriction Sites:	NotI-NotI
ACCN:	NM_138775
Insert Size:	4500 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:	<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:	<u>NM_138775.1</u> , <u>NP_620130.1</u>
RefSeq Size:	4085 bp
RefSeq ORF:	717 bp
Locus ID:	91801
UniProt ID:	<u>Q96BT7</u>
Cytogenetics:	11q22.3
Domains:	RRM
Protein Families:	Druggable Genome

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, PubMed:20308323). Catalyzes the last step in the formation of 5-methylcarboxymethyl uridine at the wobble position of the anticodon loop in target tRNA (PubMed:20123966, PubMed:20308323). Has a preference for tRNA(Arg) and tRNA(Glu), and does not bind tRNA(Lys)(PubMed:20308323). 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:21285950). Required for normal survival after DNA damage (PubMed:20308323). May inhibit apoptosis and promote cell survival and angiogenesis (PubMed:19293182).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate splice junction at the 3' end of the first exon and a downstream start codon compared to variant 1. The resulting isoform (2) is shorter at the N-terminus compared to isoform 1.