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Product datasheet for RC229328

ALKBH8 (NM_138775) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALKBH8 (NM_138775) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALKBH8
Synonyms:	ABH8; MRT71; TRM9; TRMT9; TRMT9A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC229328 representing NM_138775
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACAGCAACCATCAAAGTAATTACAAACTCAGTAAAACTGAGAAGAAGTTCTTAAGGAAACAGATTA
AAGCCAAGCATACTTTGCTGAGACATGAAGGCATTGAGACAGTATCCTATGCCACTCAGAGCCTGGTTGT
TGCCAATGGTGGTTTGGGTAATGGTGTGAGTCGGAACCAGCTGCTCCCGGTTTTAGAGAAATGTGGACTG
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AGAGAGCCTATGTTACCCTCAATGGAAAAGAAGTAGTGGATGATTTAGGACAAAAGATCACTCTGTATTT
GAATTTTGTGGAAAAAGTGCAGTGGAAGGAGTTGAGGCCTCAAGCCTTACCACCAGGACTCATGGTAGTA
GAAGAAATAATTTCTTCTGAGGAGGAGAAAATGCTTTTGGAAAGTGTTGATTGGACAGAAGATACAGACA
ATCAAAACTCTCAAAAATCCTTAAAACACAGAAGAGTAAAGCATTTTGGTTATGAGTTCCACTATGAGAA
CAACAATGTAGATAAAGATAAGCCATTATCTGGGGGTCTTCCTGACATTTGTGAAAGCTTTTTGGAGAAA
TGGTTGAGGAAAGGTTACATTAAACATAAACCTGATCAAATGACCATAAATCAGTATGAACCTGGGCAAG
GAATTCCCGCTCATATTGATACACATTCCGCTTTTGAGGATGAGATCGTTTCTCTCAGTTTGGGGTCAGA
GATTGTCATGGATTTTAAGCACCCAGATGGCATTGCAGTGCCAGTTATGTTGCCTCGTCGGAGTTTGCTG
GTGATGACAGGAGAATCTAGATACCTTTGGACCCATGGAATCACGTGCAGAAAATTTGATACTGTTCAAG
CATCTGAGAGTCTTAAAAGTGGAATTATCACCAGTGATGTTGGAGACTTAACTTTAAGCAAGAGGGGACT
ACGAACATCATTTACATTTAGGAAAGTGAGGCAAACACCTTGTAACTGTAGTTACCCGTTGGTCTGTGAT
AGCCAGAGGAAAGAGACTCCCCCCTCATTTCCAGAGAGTGATAAAGAAGCCTCACGGCTGGAGCAAGAGT
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CGACTCCTGAGACCAGGTGGGAAGGCACTCATTTATGTCTGGGCAATGGAACAAGAATATAATAAGCAGA
AGTCCAAGTATCTTAGAGGAAACAGAAATAGCCAAGGAAAGAAAGAGGAGATGAACAGTGATACCTCAGT
GCAGAGGTCACTTGTGGAGCAAATGCGTGACATGGGCAGTCGAGACTCGGCATCTTCTGTCCCCCGCATT
AATGACTCTCAGGAAGGAGGATGTAATTCAAGGCAAGTTTCTAATTCCAAGCTGCCTGTTCATGTTAACA
GGACTTCTTTTTATTCTCAAGATGTACTGGTTCCCTGGCACCTTAAGGGAAATCCTGATAAAGGCAAACC
TGTTGAGCCATTTGGTCCCATAGGATCCCAGGACCCAAGTCCTGTGTTTCATCGTTACTACCATGTGTTC
CGTGAGGGAGAACTGGAAGGTGCCTGCAGGACTGTGAGTGATGTCAGAATTCTGCAAAGCTACTACGATC
AAGGAAACTGGTGTGTGATTCTTCAAAAGGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC229328 representing NM_138775
Red=Cloning site Green=Tags(s)

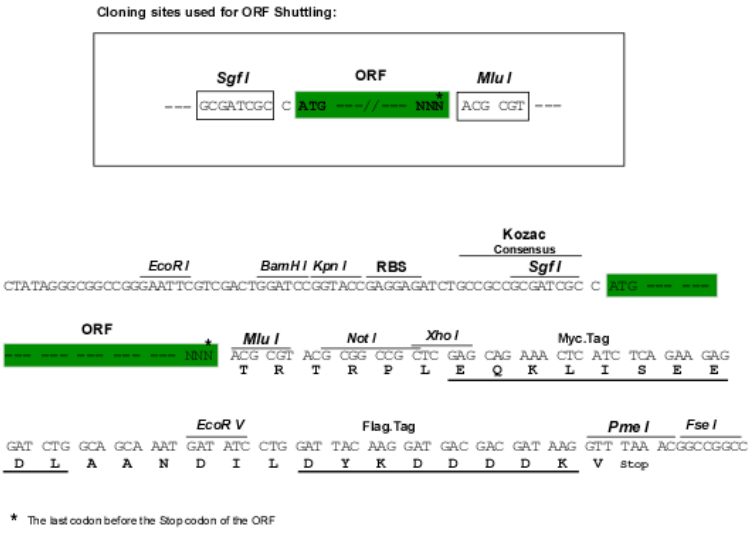
MDSNHQSNYKLSKTEKKFLRKQIKAKHTLLRHEGIETVSYATQSLVVANGGLGNGVSRNQLLPVLEKCGL
VDALLMPPNKPYSFARYRTTEESKRAYVTLNGKEVVDDLGQKITLYLNFVEKVQWKELRPQALPPGLMVV
EEIISSEEEKMLLESVDWTEDTDNQNSQKSLKHRRVKHFGYEFHYENNNVDKDKPLSGGLPDICESFLEK
WLRKGYIKHKPDQMTINQYEPGQGIPAHIDTHSAFEDEIVSLSLGSEIVMDFKHPDGIAVPVMLPRRSLL
VMTGESRYLWTHGITCRKFDTVQASESLKSGIITSDVGDLTLSKRGLRTSFTFRKVRQTPCNCSYPLVCD
SQRKETPPSFPESDKEASRLEQEYVHQVYEEIAGHFSSTRHTPWPHIVEFLKALPSGSIVADIGCGNGKY
LGINKELYMIGCDRSQNLVDICRERQFQAFVCDALAVPVRSGSCDACISIAVIHHFATAERRVAALQEIV
RLLRPGGKALIYVWAMEQEYNKQKSKYLRGNRNSQGKKEEMNSDTSVQRSLVEQMRDMGSRDSASSVPRI
NDSQEGGCNSRQVSNSKLPVHVNRTSFYSQDVLVPWHLKGNPDKGKPVEPFGPIGSQDPSPVFHRYYHVF
REGELEGACRTVSDVRILQSYYDQGNWCVILQKA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8035_c11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_138775

ORF Size: 1992 bp

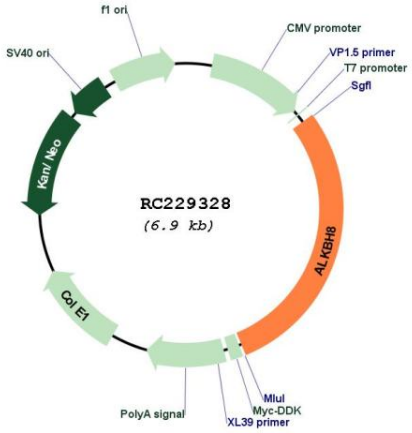
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially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

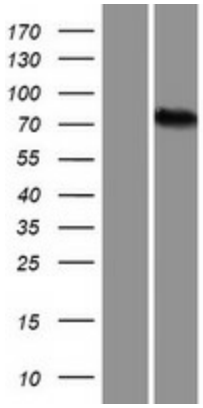
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_138775.3
RefSeq ORF:	1995 bp
Locus ID:	91801
UniProt ID:	Q96BT7
Cytogenetics:	11q22.3
Domains:	RRM
Protein Families:	Druggable Genome
MW:	75 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, 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]

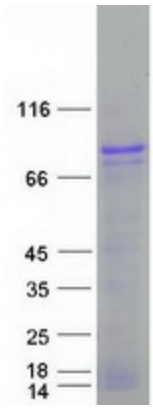
Product images:



Circular map for RC229328



Western blot validation of overexpression lysate (Cat# [LY432343]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229328 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALKBH8 protein (Cat# [TP329328]). The protein was produced from HEK293T cells transfected with ALKBH8 cDNA clone (Cat# RC229328) using MegaTran 2.0 (Cat# [TT210002]).