

Product datasheet for **RC209110**

ALKBH5 (NM_017758) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALKBH5 (NM_017758) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALKBH5
Synonyms:	ABH5; OFOXD; OFOXD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209110 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGCCGCCAGCGGCTACACGGACCTGCGTGAGAAGCTCAAGTCCATGACGTCCCGGACAACATA
 AGGCGGGCAGCCGGGAGGCCGCCCGCTGCCGACGCCGCTAGCCGCCGAGCCGAGCCGCCGCTGC
 CGCCGAACCTTACCCTGTGTCCGGGGCCAAGCGCAAGTATCAGGAGGACTCGGACCCGAGCGCAGCGAC
 TATGAGGAGCAGCAGCTGCAGAAGGAGGAGGAGGCGCGCAAGGTGAAGAGCGGCATCCGCCAGATGCGCC
 TCTTCAGCCAGGACGAGTGCGCCAAGATCGAGGCCCGCATTGACGAGGTGGTGTCCCGCGCTGAGAAGGG
 CCTGTACAACGAGCACACGGTGGACCGGGCCCCACTGCGCAACAAGTACTTCTTCGGCGAAGGCTACACT
 TACGGCGCCAGCTGCAGAAGCGCGGGCCCGCCAGGAGCGCCTCTACCCGCGGGCGACGTGGACGAGA
 TCCCGGAGTGGGTGCACCAGCTGGTATCCAAAAGCTGGTGGAGCACCGCGTCATCCCGAGGGCTTCGT
 CAACAGCGCCGTCATCAACGACTACCAGCCGGCGGCTGCATCGTGTCTCACGTGGACCCATCCACATC
 TTGAGCGCCCATCGTGTCCGTCTCTTTAGCGACTCTGCGCTGTGCTTCGGCTGCAAGTTCAGT
 TCAAGCCTATTCGGGTGTGCGAACCAGTCTTCCCTGCCGGTGCAGAGGGAAGCGTGACTGTGCTCAG
 TGGATATGCTGCTGATGAAATCACTCACTGCATACGGCCCTCAGGACATCAAGGAGCGCCGAGCAGTCATC
 ATCCTCAGGAAGACAAGATTAGATGCACCCCGTTGGAACAAAGTCCCTGAGCAGCTCCGTGTTACCAC
 CCAGCTATGCTTCAGATCGCCTGTCAGGAAACAACAGGGACCCTGCTCTGAAACCAAGCGGTCCCACCG
 CAAGGCAGACCCTGATGCTGCCACAGGCCACGGATTCTGGAGATGGACAAGGAAGAGAACCGGCGCTCG
 GTGCTGCTGCCACACACCGCGGAGGGGTAGCTTCAGCTCTGAGAACTACTGGCGCAAGTCATACGAGT
 CCTCAGAGGACTGCTCTGAGGCAGCAGGCAGCCCTGGAACTCTGGCTCATCCTTACGTAGTTGCCCTC
 CTTTTGTTTTGAGGGTTTTGTTTTGTTTATTGGGGGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGATT
 CTATATATTTTTCTTGGTTTTGTTGCCTGTTAGGGCTGAAGAATAGAATTGGCCAGGACCTAGTTCTC
 ATATTCTTGGTATTCTCTGGATGAAAGGCTGTTGGCATCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209110 protein sequence
 Red=Cloning site Green=Tags(s)

MAAASGYDLREKLKSMTSRDNYKAGSREAAAAA AVAAAAA AEPYPVSGAKRKYQEDSDPERSD
 YEEQQLQKEEEARKVKSGIRQMRLFSQDECAKIEARIDEVVSRAEKGLYNEHTVDRAPLRNKYFFGEGYT
 YGAQLQKRGPGQERLYPPGDVDEIPEWVHQLVIQKLVEHRVIPEGFVNSAVINDYQPGGCIVSHVDPIHI
 FERPIVSVSFFSDSALCFGCKFQFKPIRVSEPVLSLPVRRGVSIVL SGYAADEITHCIRPQDIKERRAVI
 ILRKTRLDAPRLETSLSSSVLPPSYASDRLSGNNRDPALPKRSHRKADPDAHRPRILEMDKEENRRS
 VLLPTHRRRGSFSSSENYWRKSYESSEDCSEAAGSPGNSGSSLRSCPSFCFEGFVFWHWGVFVFCFLFFLI
 LYIFPWFCCLLGLKNRIGQDLGSHILGIPPGWKGCWHQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6149_d08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_017758

ORF Size: 1374 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_017758.2](#), [NP_060228.2](#)

RefSeq Size: 3449 bp

RefSeq ORF: 1185 bp

Locus ID: 54890

UniProt ID: [Q6P6C2](#)

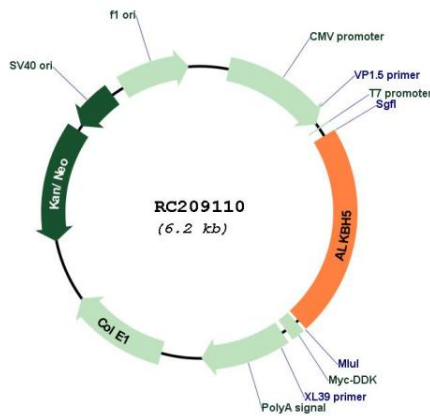
Cytogenetics: 17p11.2

Domains: 2OG-Fell_Oxy

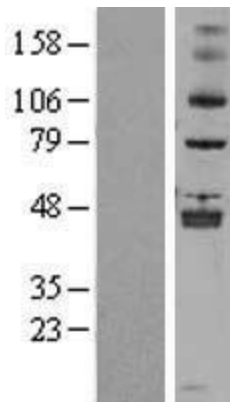
MW: 51.4 kDa

Gene Summary: Dioxygenase that demethylates RNA by oxidative demethylation: specifically demethylates N(6)-methyladenosine (m6A) RNA, the most prevalent internal modification of messenger RNA (mRNA) in higher eukaryotes (PubMed:23177736, PubMed:24489119, PubMed:24616105, PubMed:24778178). Can also demethylate N(6)-methyladenosine in single-stranded DNA (in vitro) (PubMed:24616105). Requires molecular oxygen, alpha-ketoglutarate and iron (PubMed:21264265, PubMed:23177736, PubMed:24489119, PubMed:24616105, PubMed:24778178). Demethylation of m6A mRNA affects mRNA processing and export (PubMed:23177736). Required for the late meiotic and haploid phases of spermatogenesis by mediating m6A demethylation in spermatocytes and round spermatids: m6A demethylation of target transcripts is required for correct splicing and the production of longer 3' UTR mRNAs in male germ cells (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC209110



Western blot validation of overexpression lysate (Cat# [LY402613]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209110 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).