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Product datasheet for MR228230

Alkbh7 (NM_027372) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alkbh7 (NM_027372) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alkbh7
Synonyms:	2310045B01Rik; 2510008E23Rik; Abh7; Spata11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR228230 representing NM_027372
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGGCAGCAGGAGGCTAGCGATGCGGTTGCTTTCTGGGTGCGCCTGGGTGCGCGGCTCAGACTCTG
CCGTGCTGGGCCGCCTGCGTGATGAGGCCGTGGTGCATCCAGGCTTCCTGAGCCAGGAGGAGGAGGACAC
GCTAACACGCGAACTGGAGCCCCAGCTGCGGCGCCGGCGCTACGAGTACGACCACTGGGACGCGTTCTGT
GGATCTACCATTGCTGGCCTTTCCCTGTTGTCTCCAAGTGTTATGAAGCTGGTGCATACACAGGAACCTG
AGCAGTGGCTGGAACTGTTGCTGGAGCCAGGGTCTCTCTATATCTTAAGGGGTTCAGCCCGATATGACTT
CTCCCATGAGATCCTTAGAGATGAAGAATCATTTTTTGGGGAGCACCGGGTTCCCCGGGGCCGACGCATC
TCAGTGATTTGCCGCTCCCTCCCTGAGGGGATGGGGCCAGGAAGGCCAGAAGAGCCACCTCCAGCCTGC

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR228230 representing NM_027372
Red=Cloning site Green=Tags(s)

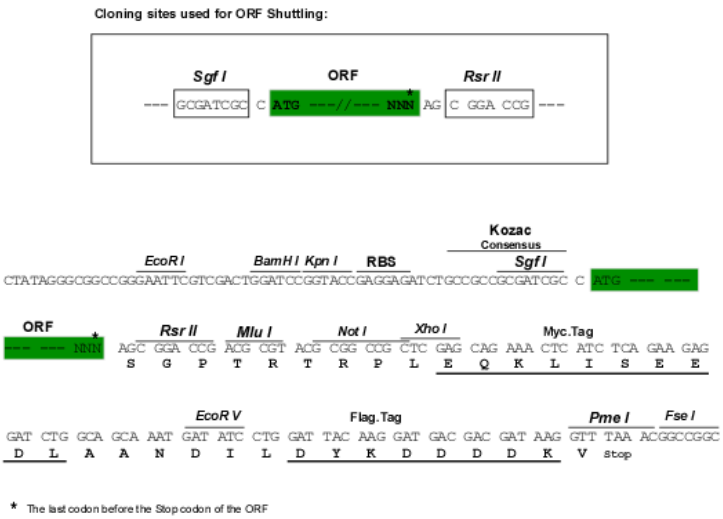
MAGSRRLAMRLLSGCAWVRGSDSAVLGRLRDEAVVHPGFLSQEEEDTLTRELEPQLRRRRYEYDHWDAFC
GSTIAGLSLLSPSVMKLVHTQEPEQWLELLLEPGSLYILRGSARYDFSHEILRDEESFFGEHRVPRGRRI
SVICRSLPEGMGPGRPEEPPPAC

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

View online »

Cloning Scheme:



ACCN:	NM_027372
ORF Size:	489 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_027372.1, NP_081648.1
RefSeq Size:	765 bp
RefSeq ORF:	492 bp
Locus ID:	66400

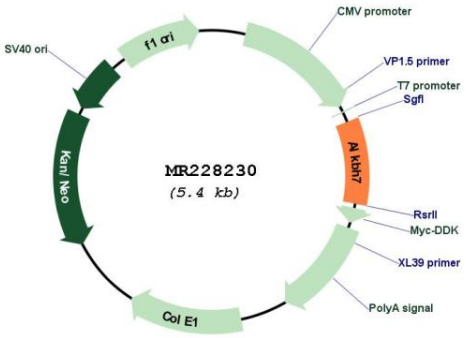
UniProt ID: Q9D6Z0

Cytogenetics: 17 D

MW: 19 kDa

Gene Summary: May function as protein hydroxylase; can catalyze auto-hydroxylation at Leu-110 (in vitro), but this activity may be due to the absence of the true substrate. Required to induce programmed necrosis in response to DNA damage caused by cytotoxic alkylating agents. Acts by triggering the collapse of mitochondrial membrane potential and loss of mitochondrial function that leads to energy depletion and cell death. ALKBH7-mediated necrosis is probably required to prevent the accumulation of cells with DNA damage. Does not display DNA demethylase activity (By similarity). Involved in fatty acid metabolism.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR228230