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Product datasheet for MG202335

Alkbh7 (BC029677) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alkbh7 (BC029677) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Alkbh7
Synonyms:	2310045B01Rik; 2510008E23Rik; Abh7; Spata11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG202335 representing BC029677
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCGGTTGCTTTCTGGGTGCGCCTGGGTGCGCGGCTCAGACTCTGCCGTGCTGGGCCGCCTGCGTGATG
AGGCCGTGGTGCATCCAGGCTTCCTGAGCCAGGAGGAGGAGGACACGCTAACACGCGAACTGGAGCCCCA
GCTGCGGCGCCGGCGCTACGAGTACGACCACTGGGACGCGGCCATCCATGGCTTCAGGGAGACAGAGAAA
TCCTGCTGGTCTGATGCAAGCCAGGTCATCCTGCAGCGGGTTCGGGCGGCTGCATTTGGTCCTGACCAGA
GCCTGCTATCCCCAGTACATGTGTTGGACCTGGAACCTCGGGGCTACATCAAGCCTCATGTTGACAGTGT
CAAGTTCTGTGGATCTACCATTGCTGGCCTTTCCCTGTTGTCTCCAAGTGTTATGAAGCTGGTGCATACA
CAGGAACCTGAGCAGTGGCTGGAACTGTTGCTGGAGCCAGGGTCTCTCTATATCTTAAGGGGTTCAGCCC
GATATGACTTCTCCCATGAGATCCTTAGAGATGAAGAATCATTTTTTGGGGAGCACCGGGTTCCCCGGGG
CCGACGCATCTCAGTGATTTGCCGCTCCCTCCCTGAGGGGATGGGGCCAGGAAGGCCAGAAGAGCCACCT
CCAGCCTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

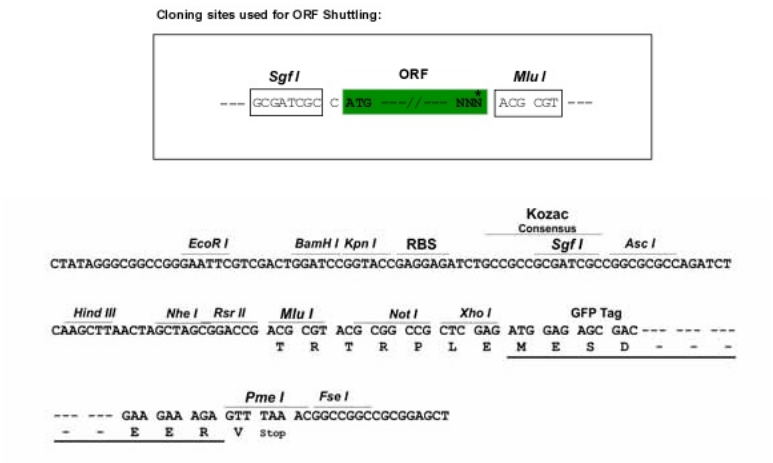
>MG202335 representing BC029677
Red=Cloning site Green=Tags(s)

MRLLSGCAWVRGSDSAVLGRLRDEAVVHPGFLSQEEEDTLTRELEPQLRRRRYEYDHWDAAIHGFRETEK
SCWSDASQVILQRVRAAAFGPDQSLLSPVHVLDLEPRGYIKPHVDSVKFCGSTIAGLSLLSPSVMKLVHT
QEPEQWLELLLEPGSLYILRGSARYDFSHEILRDEESFFGEHRVPRGRRISVICRSLPEGMGPGRPEEPP
PAC

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: BC029677

ORF Size: 639 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: BC029677, AAH29677

RefSeq Size: 718 bp

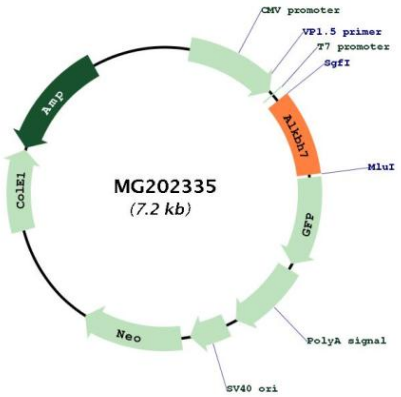
RefSeq ORF: 641 bp

Locus ID: 66400

Cytogenetics: 17 D

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 MG202335