

Product datasheet for **RC226507**

ABH2 (ALKBH2) (NM_001145374) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABH2 (ALKBH2) (NM_001145374) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABH2
Synonyms:	ABH2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC226507 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGACAGATTCCTGGTAAAGGGGCTCAAGGGGCCTTTTGGAGAACAGGAGGAGCAAGAGCCAACTG
GAGAAGAGCCAGCTGTGTTGGGAGGAGACAAAGAAAGCACAAGGAAGAGGCCAGGAGAGAGGCCCCAGG
GAATGGAGGCCACTCAGCAGGCCCTAGCTGGCGGCACATTCGGGCTGAGGGCCTGGACTGCAGTTACACA
GTCCTGTTTGGCAAAGCTGAGGCAGATGAGATTTTCCAAGAGTTGGAGAAAGAAGTAGAATATTTTACAG
GAGCACTGGCCAGAGTCCAGGTATTCGGGAAGTGGCACAGTGTGCCAGGAAGCAGGCAACGTATGGCGA
CGCTGGGCTGACCTACACATTTTCAGGCCTCACGCTGTCTCCAAAGCCCTGGATCCAGTTCTAGAGCGC
ATCCGGGATCACGTCTCTGGGGTACTGGACAGACCTTCAACTTTGTGCTCATCAACAGGTATAAAGATG
GCTGTGACCACATCGGGGAGCACCGAGATGATGAAAGAGAACTGGCCCTGGGAGCCCCATTGCCTCTGT
CTCCTTCGGTGCCTGCAGAGACTTTGTCTTCCGGCATAAGGATCCCGTGGGAAAAGCCCCCAGGAGG
GTGGCGGTGGTCAAGCTGCCGCTGGCCACGGGAGCTTACTAATGATGAACCACCCGACCAACACGCACT
GGTACCACAGTCTCCCGTGAGAAAGAAGGTTCTGGCTCCACGGTGAATCTGACTTTTCGTAATAATTTT
GCTTACTAAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC226507 protein sequence
Red=Cloning site Green=Tags(s)

MDRFLVKGAQGGLLRKQEEQEPTGEEPAVLGGDKESTRKRPREAPGNNGHSAGPSWRHIRAEGLDCSYT
 VLFGKAEADEIFQELEKEVEYFTGALARVQVFGKWHSPVRKQATYGDAGLTYTTFGLTLSPKPWIPVLER
 IRDHVSGVTGQTFNFVLINRYKDGCDHIGEHRRDERELAPGSPIASVSFGACRDFVFRHKDSRGKSPSRR
 VAVVRLPLAHGSLLMMNHPTNTHWYHSLPVRKKVLAPRVNLTFRKILLTKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6005_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001145374

ORF Size: 783 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_001145374.2](#)

RefSeq Size: 1206 bp

RefSeq ORF: 786 bp

Locus ID: 121642

UniProt ID: [Q6NS38](#)

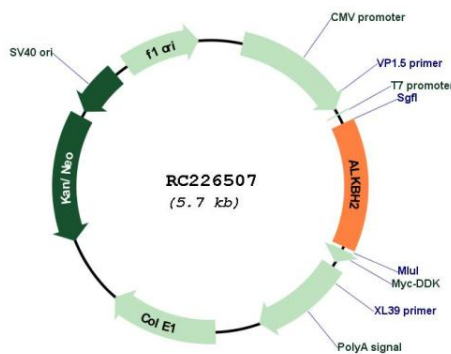
Cytogenetics: 12q24.11

Protein Families: Druggable Genome

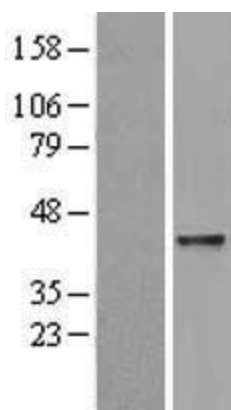
MW: 29.3 kDa

Gene Summary: The Escherichia coli AlkB protein protects against the cytotoxicity of methylating agents by repair of the specific DNA lesions generated in single-stranded DNA. ALKBH2 and ALKBH3 (MIM 610603) are E. coli AlkB homologs that catalyze the removal of 1-methyladenine and 3-methylcytosine (Duncan et al., 2002 [PubMed 12486230]).[supplied by OMIM, Mar 2008]

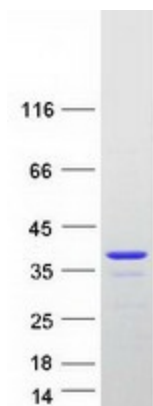
Product images:



Circular map for RC226507



Western blot validation of overexpression lysate (Cat# [LY428854]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226527] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALKBH2 protein (Cat# [TP326507]). The protein was produced from HEK293T cells transfected with ALKBH2 cDNA clone (Cat# RC226507) using MegaTran 2.0 (Cat# [TT210002]).