

Recombinant Human Alpha-Ketoglutarate-Dependent Dioxygenase AlkB Homolog 3, His-tagged

Cat. No. ALKBH3-970H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human ALKBH3 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques(1-286 aa).
Species	Human
Source	E.coli
Description	ALKBH3 is a member of the ALKB family of proteins and functions as a dioxygenase with a preference for RNA and single stranded DNA substrates. This protein repairs 1-methyladenine and 3-methylcytosine lesions in alkylated DNA and RNA and its activity is stimulated by ascorbate. ALKBH3 is expressed in a wide variety of tissues and localizes to the cytoplasm and the nucleus.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol, 2mM DTT, 0.1M NaCl.
Molecular Weight	37.9 kDa (325aa), confirmed by MALDI-TOF
Purity	> 95 % by SDS - PAGE
Concentration	1 mg/ml (determined by Bradford assay)
Sequences of amino acids	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSELDM EEKRRRARVQ GAWAAPVKSQ AIAQPATTAK SHLHQKPGQT WKNKEHHLSD REFVFKEPQQ

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VVRRAPEPRV IDREGVYEIS LSPTGVSVC LYPGFVDVKE ADWILEQLCQ
 DVPWKQRTGI REDITYQQPR LTAWYGELPY TYSRITMEPN PHWHPVLRRL
 KNRIEENTGH TFNSLLCNLY RNEKDSVDWH SDDEPSLGRC PIIASLSFGA
 TRTFEMRKKP PPEENGDYTY VERVKIPLDH GTLLIMEGAT QADWQHRVVK
 EYHSREPRVN LTFRTVYPDP RGAPW

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name

[ALKBH3 alkB, alkylation repair homolog 3 \(E. coli\) \[Homo sapiens\]](#)

Synonyms

ALKBH3; DEPC-1; DEPC1; FLJ43614; MGC118793; MGC118792; alkB, alkylation repair homolog 3 (E. coli); MGC118790; alpha-ketoglutarate-dependent dioxygenasealkB homolog 3; ABH3; prostate cancer antigen-1; PCA1; EC 1.14.11.; Prostate cancer antigen 1; alkylated DNA repair protein alkB homolog 3

Gene ID

[221120](#)

mRNA Refseq

[NM_139178](#)

Protein Refseq

[NP_631917](#)

MIM

[610603](#)

UniProt ID

[Q96Q83](#)

Chromosome Location

11p11.2

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Function

2-oxoglutarate-dependent dioxygenase activity; L-ascorbic acid binding ; DNA-N1-methyladenine dioxygenase activity; cytosine C-5 DNA demethylase activity; damaged DNA binding; ferrous iron binding; metal ion binding; oxidoreductase activity; oxidoreductase activity, acting on single donors with incorporation of molecular oxygen, incorporation of two atoms of oxygen

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