

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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

VVRRAPEPRV IDREGVYEIS LSPTGVSRVC LYPGFVDVKE ADWILEQLCQ
 DVPWKQRTGI REDITYQQPR LTAWYGELPY TYSRITMEPN PHWHPVLRTL
 KNRIEENTGH TFNSLLCNLY RNEKDSVDWH SDDEPSLGRC PIIASLSFGA
 TRTFEMRKKP PPEENGDTY VERVKIPLDH GTLLIMEGAT QADWQHRVPK
 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 dioxygenase alkB 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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