

Recombinant Hmuan AlkB, Alkylation Repair Homolog 2, His-tagged

Cat. No. ALKBH2-977H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human ALKBH2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	Alpha-ketoglutarate-dependent dioxygenasealkB homolog 2, also known ALKBH2, belongs to the ALKB family. Expressed in heart, colon, liver, testis, ovary, prostate and small intestine, ALKBH2 uses iron as a cofactor and functions as a dioxygenase that catalyzes the repair of alkylated DNA and RNA containing 1-methyladenine and 3-meth-ylcytosine. ALKBH2 is functionally activated by ascorbate and requires oxygen and α -ketoglutarate for enzymatic activity.
Formulation	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 30% glycerol
Molecular Weight	31.4kDa (281aa), confirmed by MALDI-TOF
Purity	> 90% by SDS – PAGE
Sequences of amino acids	MGSSHHHHH HSSGLVPRGSHMDRFLVKGAQ GGLLRKQEEQ EPTGEEP AVL GGDKESTRKR PRREAPNGGG HSAGPSWRHI RAEGLDCSYT VLFKAEADE IFQELEKEVE YFTGALARVQ VFGKWH SVPR KQATYGDAGL TYTFSGLTLS PKPWIPVLER IRDHVSGVTG QTFNFVLINR YKDGCDHIGE HRDDERELAP

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GSPIASVSFG ACRDFVFRHK DSRGKSPSRR VAVVRLPLAH GSLLMMNHPT
NTHWYHSLPV RKKVLAPRVN LTFRKILLTK K

concentration 0.5 mg/ml (determined by Bradford assay)

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. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name [ALKBH2 alkB, alkylation repair homolog 2 \(E. coli\) \[Homo sapiens \]](#)

Synonyms ALKBH2;alkB, alkylation repair homolog 2 (E. coli);ABH2; FLJ99103; MGC90512; alpha-ketoglutarate-dependent dioxygenasealkB homolog 2;oxy DC1;2OG-Fe(II) oxy DC1;alkylated DNA repair protein alkB homolog 2;EC 1.14.11.

Gene ID [121642](#)

MIM [610602](#)

mRNA Refseq [NM_001001655](#)

Protein Refseq [NP_001001655](#)

UniProt ID [Q6NS38](#)

Chromosome Location 12q24.11

Function 2-oxoglutarate-dependent dioxygenase activity;DNA-N1-methyladenine dioxygenase

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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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