

Recombinant Human ALKBH3, His-tagged

Cat. No. ALKBH3-26501TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human ALKBH3 with N terminal His and DDDDK tags; 325 amino acids with tags, Predicted MWt 37.9 kDa.
Species	Human
Source	E.coli
ProteinLength	286 amino acids
Description	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 (MIM 610602) and ALKBH3 are E. coli AlkB homologs that catalyze the removal of 1-methyladenine and 3-methylcytosine (Duncan et al.
Conjugation	HIS
Molecular Weight	37.900kDa inclusive of tags
Tissue specificity	Ubiquitous. Detected in heart, pancreas, skeletal muscle, thymus, testis, ovary, spleen, prostate, small intestine, peripheral blood leukocytes, urinary bladder and colon.
Form	Liquid
Purity	>95% by SDS-PAGE

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Storage buffer	Preservative: None Constituents: 10% Glycerol, 0.1M Sodium chloride, 20mM Tris HCl, 2mM DTT, pH 8.0
Storage	Store at +4°C short term (1-2 weeks). Aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Sequences of amino acids	MRGSHHHHHHGMASMTGGQQMGRDLYDDDDKDRWGSELDMEEKRRRRARVQGA WAAPVKSQAIAQPATTAKSHLHQKPGQTWKNKEHHLSDREFVFKPQQVRRRAPE PRVIDREGVYEISLSPTGVSRVCLYPGFVDVKEADWILEQLCQDVPWKQRTGIREDI TYQQPRLTAWYGELPYTYSRITMEPNPHWHPVLRRTLKNRIEENTGHTFNSLLCNLYR NEKDSVDWHSDDPEPSLGRCPPIASLSFGATRTRFEMRKKPPPEENGDYTYVERVKIPL DHGTLIMEGATQADWQHRVPKEYHSREPRVNLTFRVYVPDPRGAPW
Sequence Similarities	Belongs to the alkB family. Contains 1 Fe2OG dioxygenase domain.

GENE INFORMATION

Gene Name	ALKBH3 alkB, alkylation repair homolog 3 (E. coli) [Homo sapiens]
Official Symbol	ALKBH3
Synonyms	ALKBH3; alkB, alkylation repair homolog 3 (E. coli); alpha-ketoglutarate-dependent dioxygenase alkB homolog 3; DEPC 1;
Gene ID	221120
mRNA Refseq	NM_139178
Protein Refseq	NP_631917

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MIM	610603
Uniprot ID	Q96Q83
Chromosome Location	11p11.2
Pathway	ABH3 mediated Reversal of Alkylation Damage, organism-specific biosystem; DNA Damage Reversal, organism-specific biosystem; DNA Repair, organism-specific biosystem; Reversal of Alkylation Damage By DNA Dioxygenases, organism-specific biosystem;
Function	DNA-N1-methyladenine dioxygenase activity; L-ascorbic acid binding; cytosine C-5 DNA demethylase activity; ferrous iron binding; metal ion binding;

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