

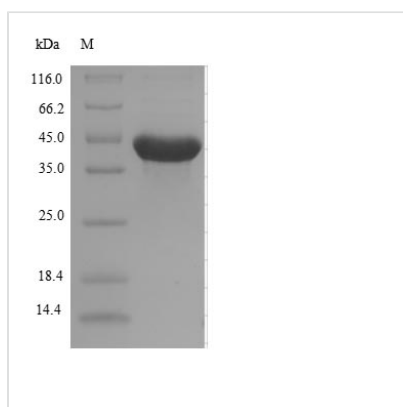


Recombinant Escherichia coli Alpha-ketoglutarate-dependent dioxygenase AlkB (alkB)

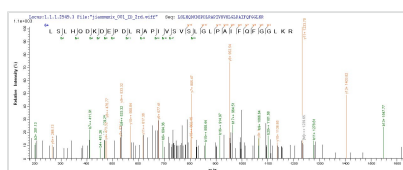
Product Code	CSB-EP356444ENV
Relevance	Dioxygenase that repairs alkylated DNA and RNA containing 3-methylcytosine or 1-methyladenine by oxidative demethylation. Has highest activity towards 3-methylcytosine. Has lower activity towards alkylated DNA containing ethenoadenine, and no detectable activity towards 1-methylguanine or 3-methylthymine. Accepts double-stranded and single-stranded substrates. Requires molecular oxygen, alpha-ketoglutarate and iron. Provides extensive resistance to alkylating agents such as MMS and DMS (SN2 agents), but not to MMNG and MNU (SN1 agents).
Abbreviation	Recombinant E.coli alkB protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P05050
Alias	Alkylated DNA repair protein AlkB DNA oxidative demethylase AlkB
Product Type	Recombinant Protein
Immunogen Species	Escherichia coli (strain K12)
Purity	≥ 90% as determined by SDS-PAGE.
Sequence	MLDLFADAEPWQEPLAAGAVILRRFAFNAAEQLIRDINDVASQSPFRQMVTPG GYTMSVAMTNCGHLGWTTTHRQGYLYSPIDPQTNKPWPAMPQSFHNLQRAA TAAGYPDFQPDACLINRYAPGAKLSLHQDKDEPDLRAPIVSVSLGLPAIFQFGG LKRNDPLKRLLEHGDVVWGGESRLFYHGIQPLKAGFHPLTIDCRYNLTFRQ AGKKE
Research Area	Epigenetics and Nuclear Signaling
Source	E.coli
Target Names	alkB
Protein Names	Recommended name: Alpha-ketoglutarate-dependent dioxygenase AlkB EC= 1.14.11.- Alternative name(s): Alkylated DNA repair protein AlkB
Expression Region	1-216aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	44.1kDa
Protein Length	Full Length



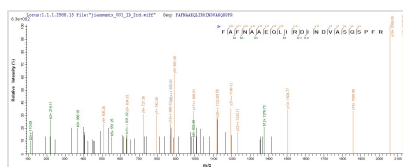
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP356444ENV could indicate that this peptide derived from E.coli-expressed Escherichia coli (strain K12) alkB.



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Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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