

Datasheet for ABIN7552181
ALKBH2 Protein (AA 1-261) (His tag)



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Overview

Quantity:	1 mg
Target:	ALKBH2
Protein Characteristics:	AA 1-261
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ALKBH2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat ALKBH2 Protein expressed in mammalien cells.
Sequence:	MDRFLVKGAQ GLLLRKQEEQ EPTGEEPVLV GGDKESTRKR PRREAPGNGG HSAGPSWRHI RAEGLDCSYT VLFGKAEADE IFQELEKEVE YFTGALARVQ VFGKWHVSVPR KQATYGDAGL TYTFSGLTLS PKPWIPVLER IRDHVSGVTG QTFNFVLINR YKDGCDHIGE HRDDERELAP GSPIASVSFG ACRDFVFRHK DSRGKSPSRR VAVVRLPLAH GSLLMMNHPT NTHWYHSLPV RKKVLAPRVN LTFRKILLTK K Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts.• Protein expressed in mammalien cells and purified in one-step affinity chromatography• The optimized expression system ensures reliability for intracellular, secreted and

Product Details

transmembrane proteins.

- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity: > 90 % as determined by Bis-Tris Page, Western Blot

Grade: custom-made

Target Details

Target: ALKBH2

Alternative Name: ALKBH2 ([ALKBH2 Products](#))

Background: DNA oxidative demethylase ALKBH2 (EC 1.14.11.33) (Alkylated DNA repair protein alkB homolog 2) (Alpha-ketoglutarate-dependent dioxygenase alkB homolog 2) (Oxy DC1),FUNCTION: Dioxygenase that repairs alkylated nucleic acid bases by direct reversal oxidative dealkylation. Can process both double-stranded (ds) and single-stranded (ss) DNA substrates, with a strong preference for dsDNA (PubMed:12486230, PubMed:12594517, PubMed:16174769, PubMed:20714506, PubMed:25797601, PubMed:23972994). Uses molecular oxygen, 2-oxoglutarate and iron as cofactors to oxidize the alkyl groups that are subsequently released as aldehydes, regenerating the undamaged bases. Probes the base pair stability, locates a weakened base pair and flips the damaged base to accommodate the lesion in its active site for efficient catalysis (PubMed:18432238, PubMed:22659876). Repairs monoalkylated bases, specifically N1-methyladenine and N3-methylcytosine, as well as higher order alkyl adducts such as bases modified with exocyclic bridged adducts known as etheno adducts including 1,N6-etheno adenine, 3,N4-etheno cytosine and 1,N2-etheno guanine (PubMed:12486230, PubMed:12594517, PubMed:16174769, PubMed:20714506, PubMed:25797601, PubMed:23972994, PubMed:26408825). Acts as a gatekeeper of genomic integrity under alkylation stress. Efficiently repairs alkylated lesions in ribosomal DNA (rDNA). These lesions can cause ss- and dsDNA strand breaks that severely impair rDNA transcription

Target Details

(PubMed:23972994). In a response mechanism to DNA damage, associates with PCNA at replication forks to repair alkylated adducts prior to replication (PubMed:19736315, PubMed:26408825). {ECO:0000269|PubMed:12486230, ECO:0000269|PubMed:12594517, ECO:0000269|PubMed:16174769, ECO:0000269|PubMed:18432238, ECO:0000269|PubMed:19736315, ECO:0000269|PubMed:20714506, ECO:0000269|PubMed:22659876, ECO:0000269|PubMed:23972994, ECO:0000269|PubMed:25797601, ECO:0000269|PubMed:26408825}.

Molecular Weight: 29.3 kDa

UniProt: [Q6NS38](#)

Pathways: [DNA Damage Repair](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months