

Product Name: KD-Validated ALKBH1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00201

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 43.8kDa

Antigen Information

Gene Name	ALKBH1
Alternative Names	ALKBH1; AlkB Homolog 1, Histone H2A Dioxygenase; ABH; ALKBH; HABH; Alpha-Ketoglutarate-Dependent Dioxygenase ABH1; Alkylated DNA Repair Protein AlkB Homolog 1; DNA N6-Methyl Adenine Demethylase ALKBH1; MRNA N(3)-Methylcytidine Demethylase; DNA Oxidative Demethylase ALKBH1; Nucleic Acid Dioxygenase ALKBH1; DNA 6mA Demethylase; DNA Lyase ABH1; AlkB; ABH1; AlkB, Alkylation Repair Homolog 1 (E. Coli); AlkB, Alkylation Repair Homolog (E. Coli); TRNA N1-Methyl Adenine Demethylase; AlkB, Alkylation Repair Homolog 1; Alkylation Repair, AlkB Homolog; DNA Demethylase ALKBH1; EC 1.14.11.51; EC 1.14.11.33; EC 1.14.11.-; EC 4.2.99.18; ALKB
Gene ID	8846.0
SwissProt ID	Q13686

Immunogen

A synthesized peptide derived from ALKBH1

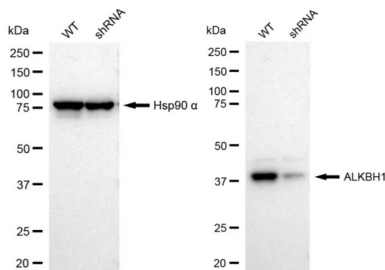
Background

This gene encodes a homolog to the *E. coli* alkB gene product. The *E. coli* alkB protein is part of the adaptive response mechanism of DNA alkylation damage repair. It is involved in damage reversal by oxidative demethylation of 1-methyladenine and 3-methylcytosine. [provided by RefSeq, Jul 2008]

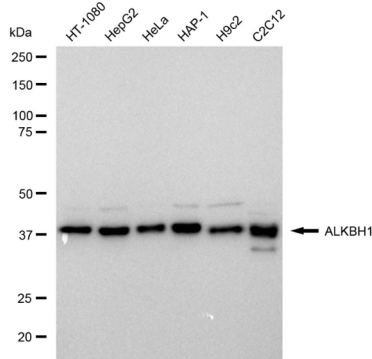
Research Area

Epigenetics and Nuclear Signaling

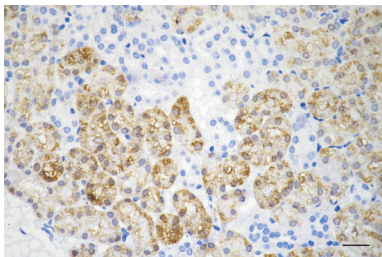
Image Data



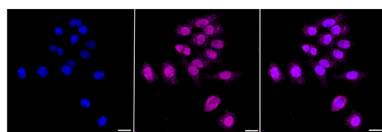
Western blotting analysis using ALKBH1 antibody (KVA00201). ALKBH1 expression in wild type (WT) and ALKBH1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with ALKBH1 antibody (KVA00201, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



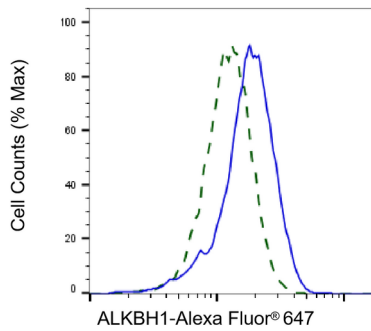
Western blotting analysis using ALKBH1 antibody (KVA00201). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with ALKBH1 antibody (KVA00201, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



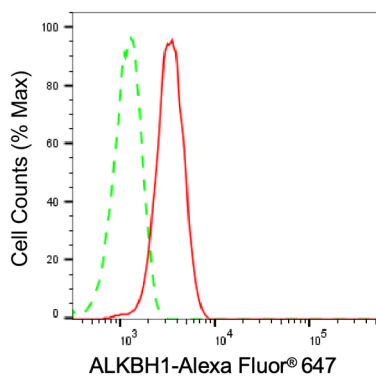
Immunohistochemistry was performed on paraffin-embedded mouse kidney using ALKBH1 antibody (KVA00201, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HepG2 cells with ALKBH1 antibody (KVA00201, 1:1,000). Nuclei were stained blue with DAPI; ALKBH1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: medium. Scale bar: 20 µm.



Validation of ALKBH1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with ALKBH1 antibody (KVA00201, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of ALKBH1 expression in HepG2 cells using ALKBH1 antibody (KVA00201, 1:2,000). Green, isotype control; red, ALKBH1.