

Product datasheet

Anti-ALKBH1 antibody [EPR6176] ab126596

KO VALIDATED Recombinant RabMAb

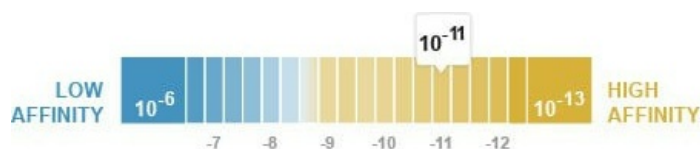
★★★★☆ 1 Abreviews 4 References 9 Images

Overview

Product name	Anti-ALKBH1 antibody [EPR6176]
Description	Rabbit monoclonal [EPR6176] to ALKBH1
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P Unsuitable for: ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat, K562 and A549 cell lysates. IHC-P: Human kidney and liver tissues. IP: Jurkat and K562 cell lysates.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K _D)	K _D = 2.80 x 10 ⁻¹¹ M



[Learn more about K_D](#)

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6176
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab126596 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

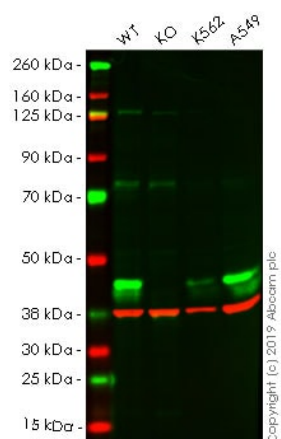
Application	Abreviews	Notes
WB	★★★★★ (1)	1/1000 - 1/10000. Detects a band of approximately 43 kDa (predicted molecular weight: 43 kDa).
IP		1/10 - 1/100.
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <u>IHC antigen retrieval protocols</u> .

Application notes Is unsuitable for ICC/IF.

Target

Function	Dioxygenase that repairs alkylated single-stranded DNA and RNA containing 3-methylcytosine by oxidative demethylation. Requires molecular oxygen, alpha-ketoglutarate and iron. May have a role in placental trophoblast lineage differentiation (By similarity). Has DNA lyase activity and introduces double-stranded breaks at abasic sites. Cleaves both single-stranded DNA and double-stranded DNA at abasic sites, with the greatest activity towards double-stranded DNA with two abasic sites. DNA lyase activity does not require alpha-ketoglutarate and iron.
Tissue specificity	Ubiquitous.
Sequence similarities	Belongs to the alkB family. Contains 1 Fe2OG dioxygenase domain.
Cellular localization	Mitochondrion. Nucleus. Mainly localizes in euchromatin, largely excluded from heterochromatin and nucleoli.

Images



Western blot - Anti-ALKBH1 antibody [EPR6176]
(ab126596)

All lanes : Anti-ALKBH1 antibody [EPR6176] (ab126596) at 1/1000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate

Lane 2 : ALKBH1 knockout HAP1 whole cell lysate

Lane 3 : K562 whole cell lysate

Lane 4 : A549 whole cell lysate

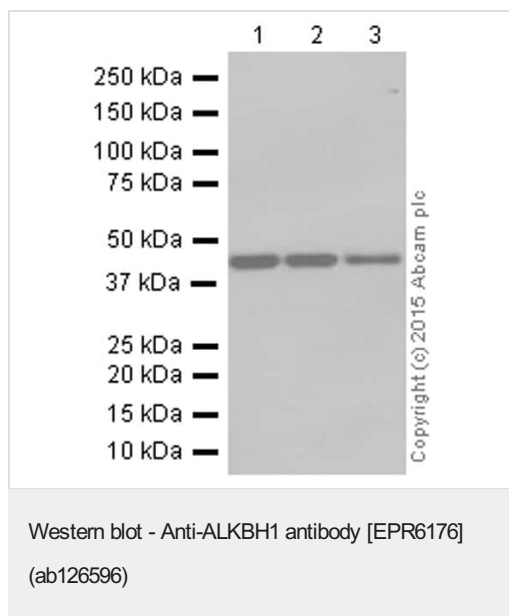
Lysates/proteins at 20 µg per lane.

Predicted band size: 43 kDa

Observed band size: 43 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab126596 observed at 43 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab126596 was shown to specifically react with in wild-type HAP1 cells as signal was lost in ALKBH1 knockout cells. Wild-type and ALKBH1 knockout samples were subjected to SDS-PAGE. The membrane was blocked with 3% Milk. Ab126596 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



All lanes : Anti-ALKBH1 antibody [EPR6176] (ab126596) at 1/10000 dilution (purified)

Lane 1 : Jurkat whole cell lysate

Lane 2 : K562 whole cell lysate

Lane 3 : A549 whole cell lysate

Lysates/proteins at 20 µg per lane.

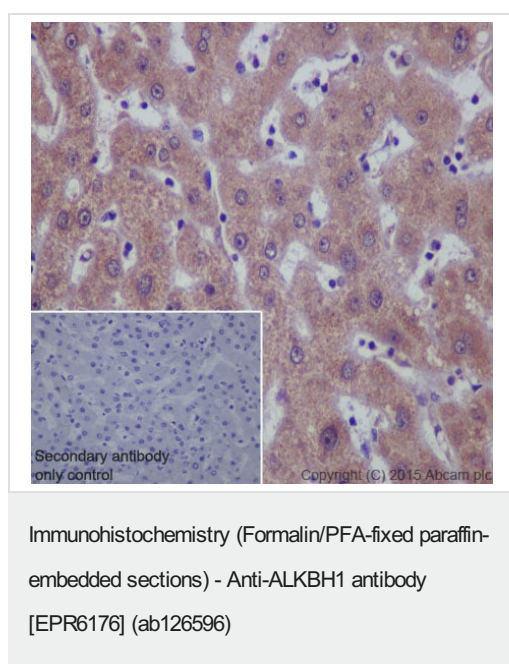
Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

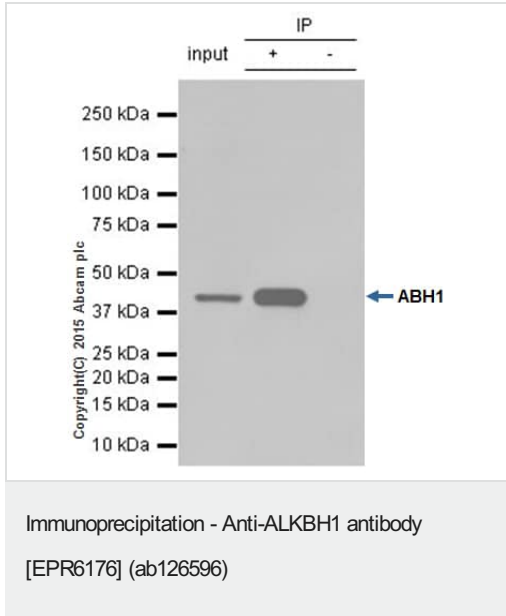
Predicted band size: 43 kDa

Observed band size: 43 kDa

Blocking and dilution buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue labelling ALKBH1 with purified ab126596 at a dilution of 1/50. Heat mediated antigen retrieval was performed using EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



ab126596 (purified) at a dilution of 1/30

immunoprecipitating ALKBH1 in Jurkat whole cell lysate.

Lane 1 (input): Jurkat whole cell lysate (10µg)

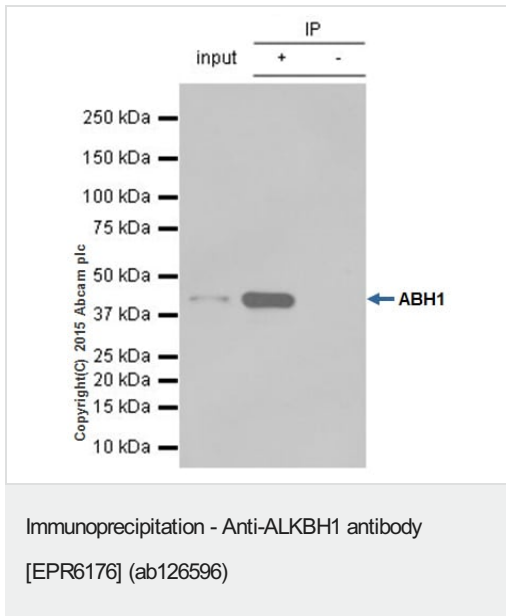
Lane 2 (+): ab126596 + Jurkat whole cell lysate.

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab126596 in Jurkat whole cell lysate.

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



ab126596 (purified) at a dilution of 1/30

immunoprecipitating ALKBH1 in K562 whole cell lysate.

Lane 1 (input): K562 whole cell lysate (10µg)

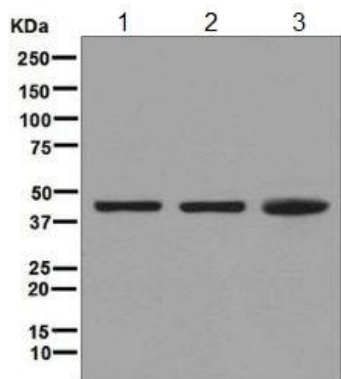
Lane 2 (+): ab126596 + K562 whole cell lysate.

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab126596 in K562 whole cell lysate.

For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.



Western blot - Anti-ALKBH1 antibody [EPR6176] (ab126596)

All lanes : Anti-ALKBH1 antibody [EPR6176] (ab126596) at 1/1000 dilution (unpurified)

Lane 1 : Jurkat cell lysate

Lane 2 : K562 cell lysate

Lane 3 : A549 cell lysate

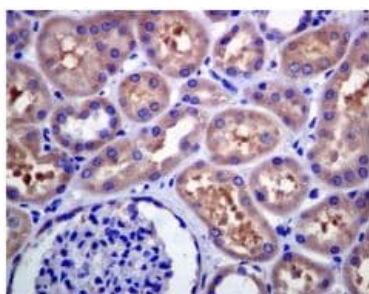
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

Predicted band size: 43 kDa

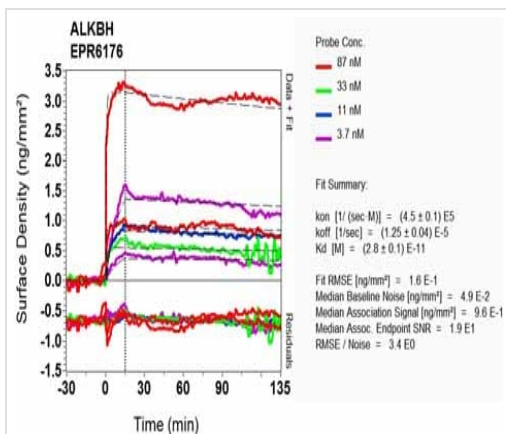
Observed band size: 43 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALKBH1 antibody [EPR6176] (ab126596)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling ALKBH1 with unpurified ab126596 at a dilution of 1/50.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



SPR Scanning - Anti-ALKBH1 antibody [EPR6176]
(ab126596)

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

Why choose a
recombinant antibody?



**Research with
confidence**
Consistent and
reproducible results



**Long-term and
scalable supply**
Recombinant
technology



**Success from the
first experiment**
Confirmed
specificity



**Ethical standards
compliant**
Animal-free
production

Anti-ALKBH1 antibody [EPR6176] (ab126596)

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