abcam

Product datasheet

Anti-ALKBH1 antibody [EPR6175(2)] ab128895

KO VALIDATED Recombinant RabMAb

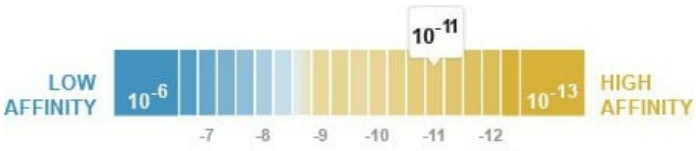
★★★★★ 2 Abreviews 2 References 6 Images

Overview

Product name	Anti-ALKBH1 antibody [EPR6175(2)]
Description	Rabbit monoclonal [EPR6175(2)] to ALKBH1
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P **Unsuitable for:** Flow Cyt,ICC/IF or IP
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide within Human ALKBH1 aa 1-100 (N terminal). The exact sequence is proprietary.
Positive control	A431, Jurkat, A549, K562, Raw 264.7, and NIH3T3 cell lysates, Human breast carcinoma tissue
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	$K_D = 6.10 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6175(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab128895 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

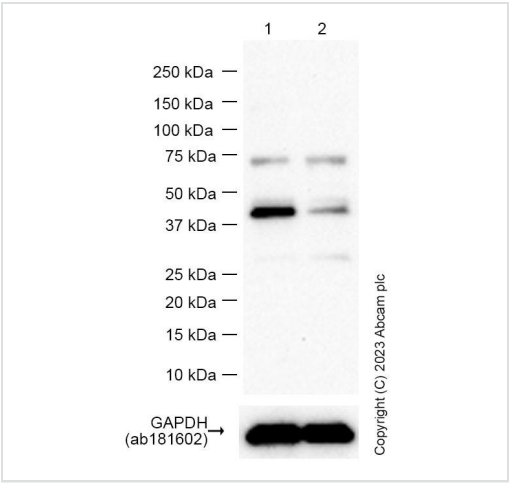
Application	Abreviews	Notes
WB	★★★★★ (2)	1/1000 - 1/10000. Detects a band of approximately 43 kDa (predicted molecular weight: 43 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Application notes Is unsuitable for Flow Cyt,ICC/IF or IP.

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 [EPR6175(2)] (ab128895)

All lanes : Anti-ALKBH1 antibody [EPR6175(2)] (ab128895) at 1/1000 dilution

Lane 1 : A549 (Human lung carcinoma epithelial cell) transfected with scrambled siRNA control whole cell lysate
Lane 2 : A549 (Human lung carcinoma epithelial cell) transfected with siRNA specifically targeting ALKBH1 whole cell lysate

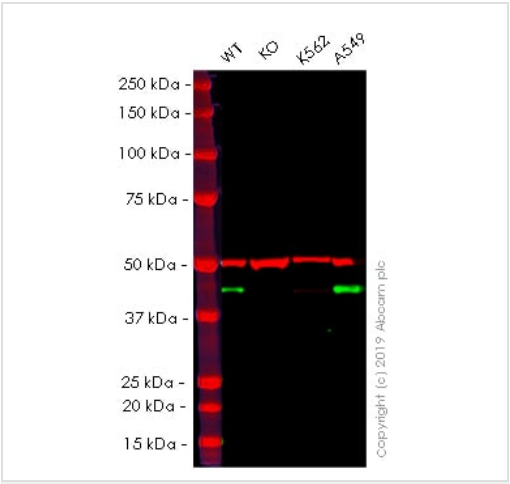
Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 20000 µg

Predicted band size: 43 kDa
Observed band size: 44 kDa

Exposure time: 120 seconds

Blocking and diluting buffer: 5% NFDM/TBST



Western blot - Anti-ALKBH1 antibody [EPR6175(2)] (ab128895)

All lanes : Anti-ALKBH1 antibody [EPR6175(2)] (ab128895) at 1/1000 dilution

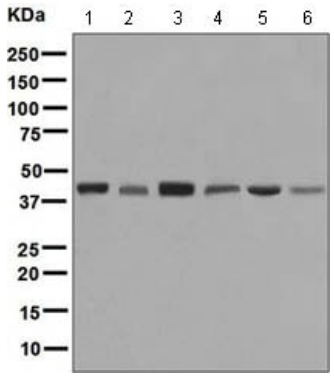
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : ALKBH1 knockout HAP1 whole cell lysate
Lane 3 : K562 whole cell lysate
Lane 4 : A549 whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 43 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab128895 observed at 43 kDa. Red - loading control, **ab7291**, observed at 50 kDa.

ab128895 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% NF Milk. Ab128895 and **ab7291** (Mouse anti Tubulin 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.



Western blot - Anti-ALKBH1 antibody [EPR6175(2)] (ab128895)

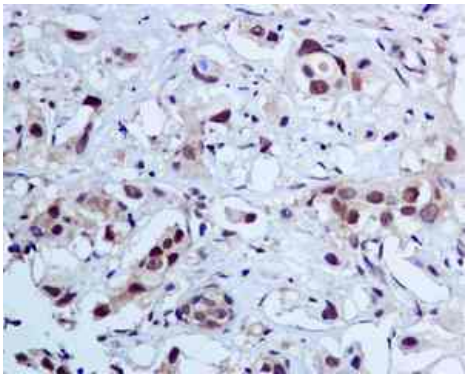
All lanes : Anti-ALKBH1 antibody [EPR6175(2)] (ab128895) at 1/1000 dilution

Lane 1 : A431 cell lysate
Lane 2 : Jurkat cell lysate
Lane 3 : A549 cell lysate
Lane 4 : K562 cell lysate
Lane 5 : Raw 264.7 cell lysate
Lane 6 : NIH3T3 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

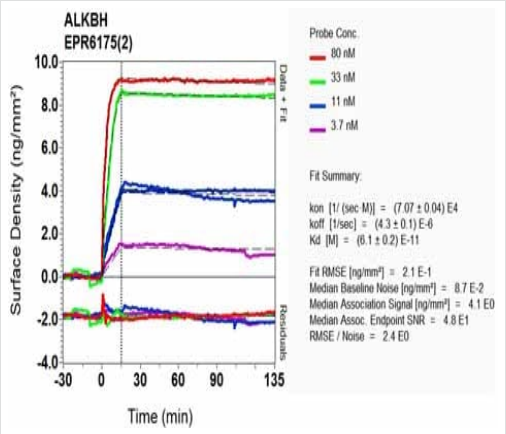
Predicted band size: 43 kDa
Observed band size: 43 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALKBH1 antibody [EPR6175(2)] (ab128895)

ab128895, at a dilution of 1/50, staining ALKBH1 in paraffin-embedded Human breast carcinoma tissue by Immunohistochemistry.

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

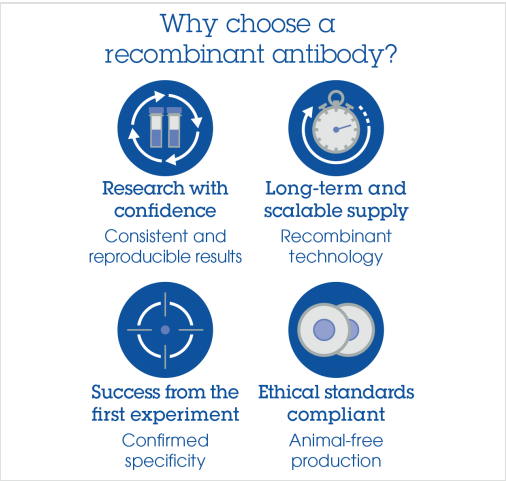


OI-RD Scanning - Anti-ALKBH1 antibody [EPR6175(2)] (ab128895)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-ALKBH1 antibody [EPR6175(2)] (ab128895)

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