abcam

Product datasheet

Anti-ALKBH1 antibody [EPR6175(2)] - BSA and Azide free ab248205

KO VALIDATED Recombinant RabMAb

4 Images

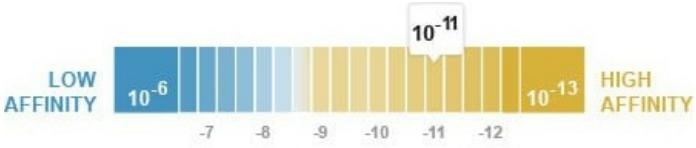
Overview

Product name	Anti-ALKBH1 antibody [EPR6175(2)] - BSA and Azide free
Description	Rabbit monoclonal [EPR6175(2)] to ALKBH1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB **Unsuitable for:** Flow Cyt,ICC/IF or IP
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: K562, A549, and HAP1 whole cell lysates.
General notes	ab248205 is the carrier-free version of **ab128895**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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 +4°C. Do Not Freeze.
Dissociation constant (K_D)	$K_D = 6.10 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6175(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab248205 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
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 43 kDa (predicted molecular weight: 43 kDa).

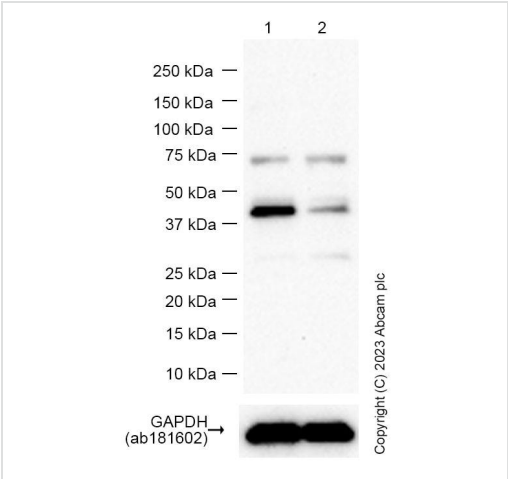
Application notes Is unsuitable for Flow Cyt,ICC/IF or IP.

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)] - BSA and Azide free (ab248205)

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.

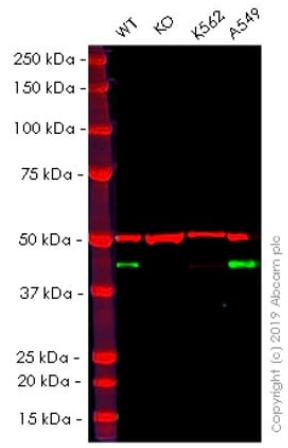
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

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

Exposure time: 120 seconds

This data was developed using the same antibody clone in a different buffer formulation (**ab128895**).

Blocking and diluting buffer: 5% NFDM /TBST



Western blot - Anti-ALKBH1 antibody [EPR6175(2)] - BSA and Azide free (ab248205)

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

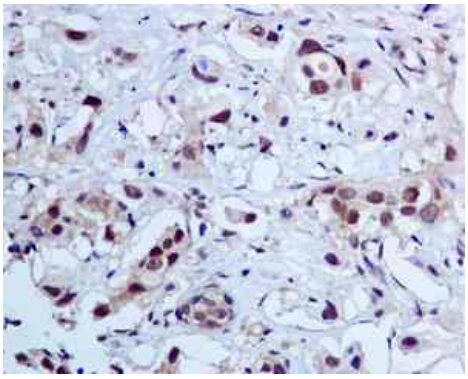
Lysates/proteins at 20 µg per lane.

Predicted band size: 43 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab128895**).

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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ALKBH1 antibody [EPR6175(2)] - BSA and Azide free (ab248205)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab128895**).

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

Anti-ALKBH1 antibody [EPR6175(2)] - BSA and Azide free (ab248205)

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