# abcam

## Product datasheet

# Anti-KAP1 antibody ab3831

★★★★★ 4 Abreviews 8 References 画像数 3

#### 製品の概要

製品名 Anti-KAP1 antibody

製品の詳細 Goat polyclonal to KAP1

由来種 Goat

アプリケーション 適用あり: ICC/IF, IHC-P, WB

種交差性 交差種: Mouse, Human

免疫原 Synthetic peptide: SSQELSGGPGDGP, corresponding to amino acids 741-753 of KAP 1.

■ Run BLAST with Expasy
■ Run BLAST with NCBI

ポジティブ・コントロール WB: HepG2 lysate. IHC-P: Human breast tissue.

特記事項 The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or

contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

**バッファー** pH: 7.30

Preservative: 0.02% Sodium azide

Constituents: Tris buffered saline, 0.5% BSA

精製度 Immunogen affinity purified

特記事項(精製) Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity

chromatography using the immunizing peptide.

**ポリ/モノ** ポリクローナル

アイソタイプ lqG

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アプリケーション	Abreviews	特記事項
ICC/IF	<b>★★★★ (1)</b>	Use a concentration of 5 μg/ml.
IHC-P		Use a concentration of 4 - 6 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	<b>★★★★★ (2)</b>	Use a concentration of 1 - 3 μg/ml. Detects a band of approximately 110 kDa (predicted molecular weight: 100 kDa).  1 hour primary incubation is recommended for this product.

### ターゲット情報

#### 機能

Nuclear corepressor for KRAB domain-containing zinc finger proteins (KRAB-ZFPs). Mediates gene silencing by recruiting CHD3, a subunit of the nucleosome remodeling and deacetylation (NuRD) complex, and SETDB1 (which specifically methylates histone H3 at 'Lys-9' (H3K9me)) to the promoter regions of KRAB target genes. Enhances transcriptional repression by coordinating the increase in H3K9me, the decrease in histone H3 'Lys-9 and 'Lys-14' acetylation (H3K9ac and H3K14ac, respectively) and the disposition of HP1 proteins to silence gene expression. Recruitment of SETDB1 induces heterochromatinization. May play a role as a coactivator for CEBPB and NR3C1 in the transcriptional activation of ORM1. Also corepressor for ERBB4. Inhibits E2F1 activity by stimulating E2F1-HDAC1 complex formation and inhibiting E2F1 acetylation. May serve as a partial backup to prevent E2F1-mediated apoptosis in the absence of RB1. Important regulator of CDKN1A/p21(CIP1). Has E3 SUMO-protein ligase activity toward itself via its PHD-type zinc finger.

#### 組織特異性

Expressed in all tissues tested including spleen, thymus, prostate, testis, ovary, small intestine, colon and peripheral blood leukocytes.

#### パスウェイ

Protein modification; protein sumoylation.

#### 配列類似性

Belongs to the TRIM/RBCC family. Contains 2 B box-type zinc fingers.

Contains 1 bromo domain.

Contains 1 PHD-type zinc finger.

Contains 1 RING-type zinc finger.

#### ドメイン

The HP1 box is both necessary and sufficient for HP1 binding.

The PHD-type zinc finger enhances CEBPB transcriptional activity. The PHD-type zinc finger, the HP1 box and the bromo domain, function together to assemble the machinery required for repression of KRAB domain-containing proteins. Acts as an intramolecular SUMO E3 ligase for autosumoylation of bromodomain.

The RING-finger-B Box-coiled-coil/tripartite motif (RBCC/TRIM motif) is required for interaction with the KRAB domain of KRAB-zinc finger proteins. Binds four zinc ions per molecule. The RING finger and the N-terminal of the leucine zipper alpha helical coiled-coil region of RBCC are required for oligomerization.

Contains one Pro-Xaa-Val-Xaa-Leu (PxVxL) motif, which is required for interaction with chromoshadow domains. This motif requires additional residues -7, -6, +4 and +5 of the central

#### 翻訳後修飾

Val which contact the chromoshadow domain.

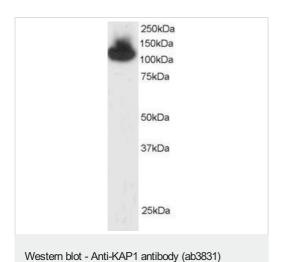
Phosphorylated upon DNA damage, probably by ATM or ATR. ATM-induced phosphorylation on Ser-824 represses sumoylation leading to the de-repression of expression of a subset of genes involved in cell cycle control and apoptosis in response to genotoxic stress. Dephosphorylation by the phosphatases, PPP1CA and PP1CB forms, allows sumoylation and expression of TRIM28 target genes.

Sumoylation/desumoylation events regulate TRIM28-mediated transcriptional repression. Sumoylation is required for interaction with CHD3 and SETDB1 and the corepressor activity. Represses and is repressed by Ser-824 phosphorylation. Enhances the TRIM28 corepressor activity, inhibiting transcriptional activity of a number of genes including GADD45A and CDKN1A/p21. Lys-554, Lys-779 and Lys-804 are the major sites of sumoylation. In response to Dox-induced DNA damage, enhanced phosphorylation on Ser-824 prevents sumoylation and allows de-repression of CDKN1A/p21.

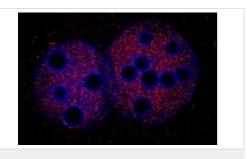
#### 細胞内局在

Nucleus. Associated with centromeric heterochromatin during cell differentiation through CBX1.

#### 画像

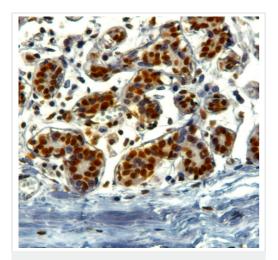


ab3831 staining (0.5µg/ml) of HepG2 lysate (RIPA buffer, 30µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence. ab3831 staining (0.5µg/ml) of HepG2 lysate (RIPA buffer, 30µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



Immunocytochemistry/ Immunofluorescence - Anti-KAP1 antibody (ab3831)

TIF1b is uniformly distributed in the two pronuclei of the mouse embryo at the late zygote stage. Mouse zygotes were processed for immunostaining using the KAP1 antibody. DNA is shown in blue. The dilution used was 1 to 100 in PBS-Tween with 3% BSA. This is part of the review submitted by ME Torres-Padilla on 27 July 2004.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-KAP1 antibody (ab3831)

Paraffin embedded human breast tissue stained for KAP1 using ab3831 at 2  $\mu$ g/ml in immunohistochemical analysis. Steamed antigen retrieval with Tris/EDTA buffer pH 9, HRP-staining.

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