abcam

Product datasheet

Anti-KAP1 antibody ab10483

7 Abreviews 66 References 画像数 5

製品の概要

製品名	Anti-KAP1 antibody
製品の詳細	Rabbit polyclonal to KAP1
由来種	Rabbit
アプリケーション	**適用あり:** WB, IHC-P, IP
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide. The immunogen is between aa 1-50. Database link: **Q13263**
ポジティブ・コントロール	WB: human HeLa, HEK293T cells; mouse NIH3T3, TCMK-1, 4T1, CT26.WT, rat C6 cells. IP: HeLa cells. IHC: human breast carcinoma
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. Avoid freeze / thaw cycle.
バッファー	pH: 7 Preservative: 0.1% Sodium azide Constituents: 0.021% PBS, 1.764% Sodium citrate, 1.815% Tris
精製度	Immunogen affinity purified
特記事項（精製）	Antibodies were affinity purified using the peptide immobilized on solid support.
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab10483の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★☆ (3)	1/2000 - 1/10000. Detects a band of approximately 110 kDa (predicted molecular weight: 100 kDa).
IHC-P	★★★★★ (1)	1/500 - 1/2000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP	★★★★★ (1)	Use at 2-10 µg/mg of lysate.

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

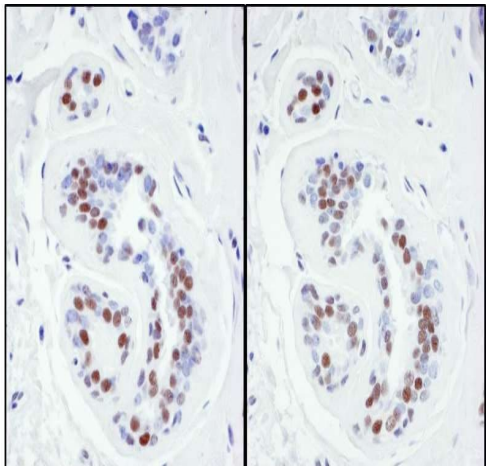
Belongs to the TRIM/RBCC family.
Contains 2 B box-type zinc fingers.
Contains 1 bromo domain.
Contains 1 PHD-type zinc finger.
Contains 1 RING-type zinc finger.

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 Val which contact the chromoshadow domain.

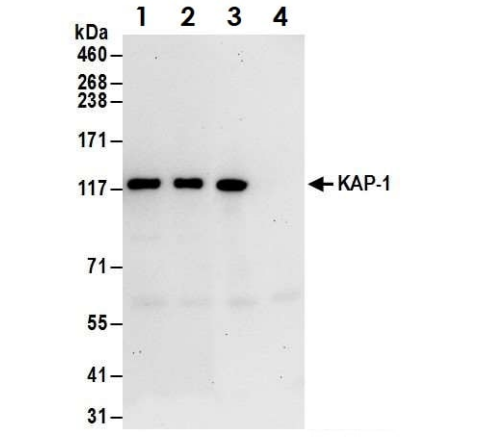
翻訳後修飾	Phosphorylated upon DNA damage, probably by ATM or ATR. ATM-induced phosphorylation on Ser-824 represses sumoylation leading to the de-repression of expression of a subset of genes involved in cell cycle control and apoptosis in response to genotoxic stress. Dephosphorylation by the phosphatases,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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KAP1 antibody (ab10483)

Immunohistochemistry analysis of formalin-fixed paraffin embedded sections of human breast tissue staining KAP-1 with ab10483 at 1/1000 dilution, showing the current lot on the left, and previous lot on the right.



Immunoprecipitation - Anti-KAP1 antibody (ab10483)

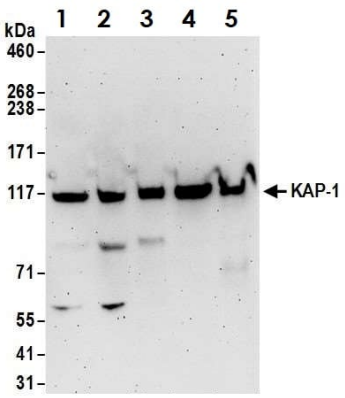
Immunoprecipitation of KAP-1 from HeLa whole cell lysate using ab10483

Lane 1: ab10483 current lot

Lane 2: ab10483 previous lot

Lane 3: other rabbit anti-KAP-1 antibody

Lane 4: Control IgG



Western blot - Anti-KAP1 antibody (ab10483)

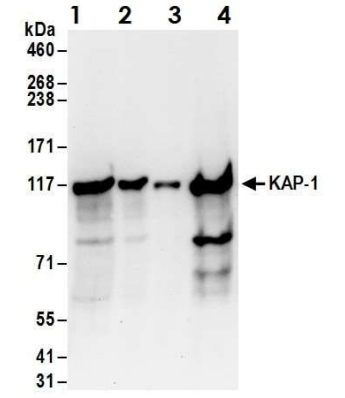
All lanes : Anti-KAP1 antibody (ab10483) at 1 µg/ml

Lane 1 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate
Lane 2 : TCMK-1 (mouse kidney epithelial cell line) whole cell lysate
Lane 3 : 4T1 (Mouse mammary gland carcinoma cell line) whole cell lysate
Lane 4 : CT26.WT (murine colon carcinoma) whole cell lysate
Lane 5 : C6 (rat glioma cell line) whole cell lysate

Lysates/proteins at 50 µg/ml per lane.

Predicted band size: 100 kDa

Exposure time: 3 minutes



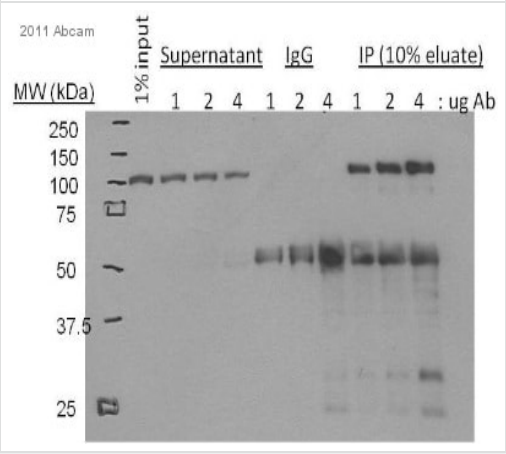
Western blot - Anti-KAP1 antibody (ab10483)

All lanes : Anti-KAP1 antibody (ab10483) at 0.1 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 µg
Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 15 µg
Lane 3 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 5 µg
Lane 4 : HEK293T cells (human epithelial cell line from embryonic kidney transformed with large T antigen) at 50 µg

Predicted band size: 100 kDa

Exposure time: 30 seconds



Immunoprecipitation - Anti-KAP1 antibody (ab10483)

This image was taken from an abreview submitted by an Seth Frietze.

The ab10483 antibody was used to immunoprecipitate KAP1 from HEK293 nuclear extracts. Three different amounts of ab10483 or control IgG were tested (1, 2 or 4 ug). The eluates from these experiments as well as the supernatants from the KAP1 IPs were analyzed by Western blotting using the ab10483 antibody. As shown by Western blotting, the presence of a ~110 kDa band demonstrated that KAP1 was specifically precipitated from these extracts. The 50 and 25 kDa bands correspond to the IgG of the IP antibodies.

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