


Anti-KAP1 antibody [EPR5216] ab109287

敲除验证
重组
RabMAb

★★★★★
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概述

产品名称	Anti-KAP1抗体[EPR5216]
描述	兔单克隆抗体[EPR5216] to KAP1
宿主	Rabbit
经测试应用	适用于: WB, IHC-P, ICC/IF 不适用于: IP
种属反应性	与反应: Mouse, Human 预测可用于: Rat 
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	IHC-P: Human colon or breast carcinoma tissue. WB: HeLa, A431, PC-3, MCF-7 cell lysates. ICC/IF: HeLa cells.
常规说明	<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>

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
存储溶液	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
纯度	Protein A purified
克隆	单克隆

克隆编号EPR5216

同种型IgG

应用

The Abpromise guarantee

Abpromise™承诺保证使用ab109287于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (3)	1/10000 - 1/50000. Detects a band of approximately 110 kDa (predicted molecular weight: 89 kDa).
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Heat up to 98 degrees C, below boiling, and then let cool for 10-20 min.
ICC/IF	★★★★★ (1)	1/100 - 1/250.

应用说明

Is unsuitable for IP.

靶标

功能

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.

组织特异性

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

通路

Protein modification; protein sumoylation.

序列相似性

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.

结构域

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 autSUMOylation 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.

翻译后修饰

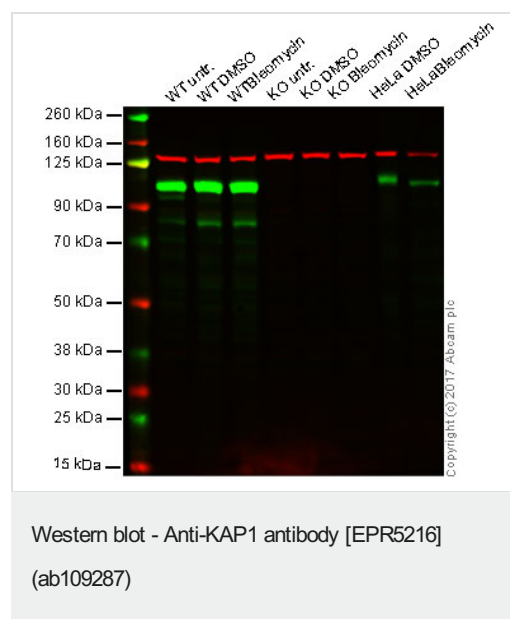
Phosphorylated upon DNA damage, probably by ATM or ATR. ATM-induced phosphorylation on Ser-824 represses sumoylation leading to the de-repression of expression of a subset of genes involved in cell cycle control and apoptosis in response to genotoxic stress. Dephosphorylation by the phosphatases, PPP1CA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

细胞定位

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

图片



Lane 1: Wild type HAP1 whole cell lysate (20 µg)

Lane 2: Wild type HAP1 + DMSO whole cell lysate (20 µg)

Lane 3: Wild type HAP1 + Blaomycin whole cell lysate (20 µg)

Lane 4: TRIM28 knockout HAP1 whole cell lysate (20 µg)

Lane 5: TRIM28 knockout HAP1 + DMSO whole cell lysate (20 µg)

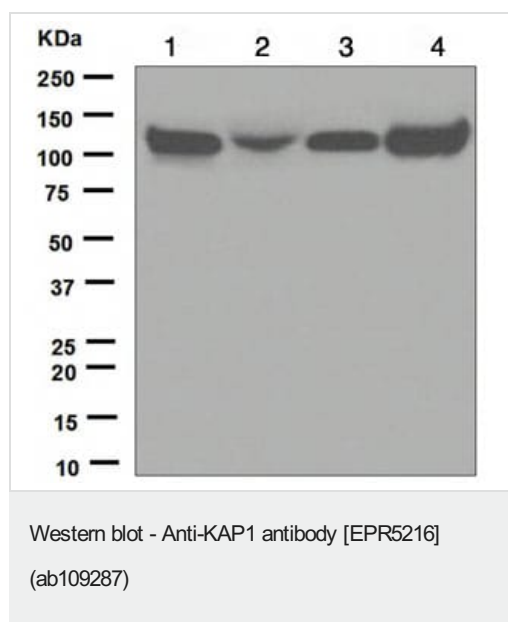
Lane 6: TRIM28 knockout HAP1 + Blaomycin whole cell lysate (20 µg)

Lane 7: HeLa + DMSO whole cell lysate (20 µg)

Lane 8: HeLa + Blaomycin whole cell lysate (20 µg)

Lanes 1 - 8: Merged signal (red and green). Green - ab109287 observed at 110 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

ab109287 was shown to specifically react with KAP1 in wild type cells as signal was lost in KAP1 knockout cells. Wild-type and KAP1 knockout samples were subjected to SDS-PAGE. ab109287 and [ab8245](#) (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/10000 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-KAP1 antibody [EPR5216] (ab109287) at 1/10000 dilution

Lane 1 : HeLa cell lysate

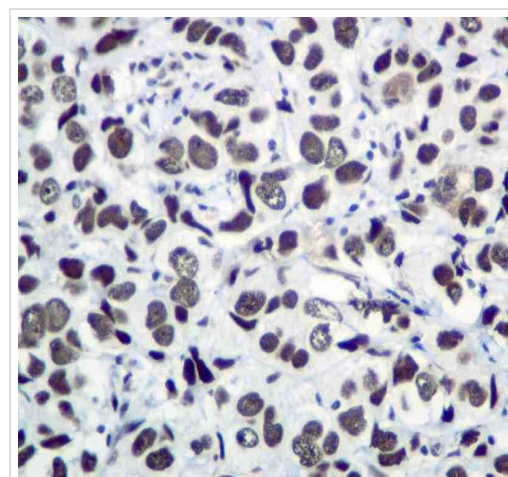
Lane 2 : A431 cell lysate

Lane 3 : PC-3 cell lysate

Lane 4 : MCF-7 cell lysate

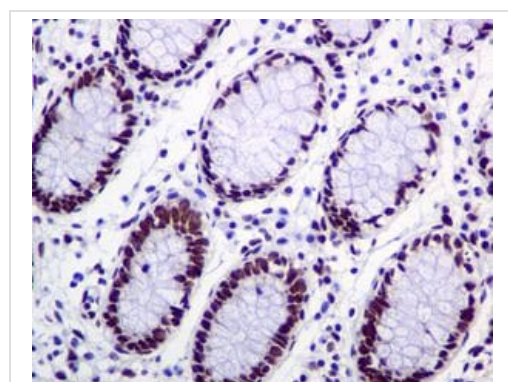
Lysates/proteins at 10 µg per lane.

Predicted band size: 89 kDa



Immunohistochemical analysis of paraffin-embedded Human breast carcinoma tissue using 1/250 ab109287.

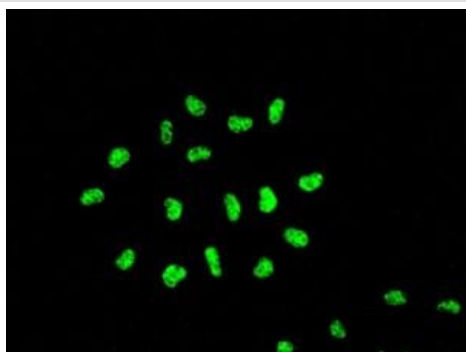
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemical analysis of paraffin-embedded Human colon tissue using 1/250 ab109287.

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-KAP1 antibody [EPR5216] (ab109287)



Immunofluorescent staining of HeLa cells using 1/100 ab109287.

Immunocytochemistry/ Immunofluorescence - Anti-KAP1 antibody [EPR5216] (ab109287)

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-KAP1 antibody [EPR5216] (ab109287)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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