abcam

Product datasheet

Anti-HDAC9 antibody [EPR5223] ab109446

KO 評価済 リコンビナント RabMAb

★★★★★ 2 Abreviews 19 References 画像数 7

製品の概要

製品名	Anti-HDAC9 antibody [EPR5223]
製品の詳細	Rabbit monoclonal [EPR5223] to HDAC9
由来種	Rabbit
アプリケーション	**適用あり:** Flow Cyt (Intra), IP, WB, IHC-P, ICC/IF
種交差性	**交差種:** Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: HepG2, Raji, K-562, and HAP1 whole cell lysate. IHC-P: Human cerebrum tissue. ICC/IF: K-562 cells. Flow Cyt (Intra): K-562 cells. IP: K-562 whole cell lysate.
特記事項	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**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR5223
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ab109446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
Flow Cyt (Intra)		1/100.
IP		1/30.
WB		1/10000. Detects a band of approximately 160 kDa (predicted molecular weight: 111 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF	★★★★★ (1)	1/100 - 1/250.

ターゲット情報

機能 Responsible for the deacetylation of lysine residues on the N-terminal part of the core histones (H2A, H2B, H3 and H4). Histone deacetylation gives a tag for epigenetic repression and plays an important role in transcriptional regulation, cell cycle progression and developmental events. Represses MEF2-dependent transcription.
Isoform 3 lacks active site residues and therefore is catalytically inactive. Represses MEF2-dependent transcription by recruiting HDAC1 and/or HDAC3. Seems to inhibit skeletal myogenesis and to be involved in heart development. Protects neurons from apoptosis, both by inhibiting JUN phosphorylation by MAPK10 and by repressing JUN transcription via HDAC1 recruitment to JUN promoter.

組織特異性 Broadly expressed, with highest levels in brain, heart, muscle and testis. Isoform 3 is present in human bladder carcinoma cells (at protein level).

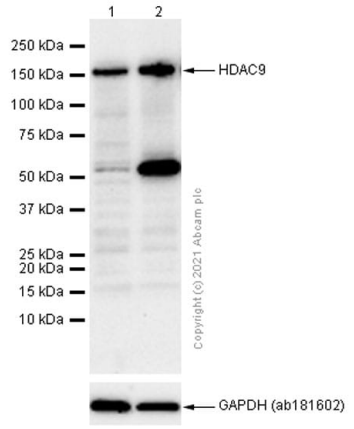
関連疾患 Note=A chromosomal aberration involving HDAC9 is found in a family with Peters anomaly. Translocation t(1;7)(q41;p21) with TGFB2 resulting in lack of HDAC9 protein.

配列類似性 Belongs to the histone deacetylase family. HD type 2 subfamily.

翻訳後修飾 Phosphorylated on Ser-220 and Ser-450; which promotes 14-3-3-binding, impairs interaction with MEF2, and antagonizes antimyogenic activity. Phosphorylated on Ser-240; which impairs nuclear accumulation (By similarity). Isoform 7 is phosphorylated on Tyr-1010. Phosphorylated by the PKC kinases PKN1 and PKN2, impairing nuclear import.
Sumoylated.

細胞内局在 Nucleus.

画像



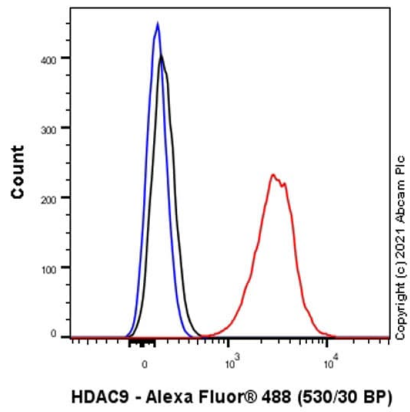
Western blot - Anti-HDAC9 antibody [EPR5223] (ab109446)

All lanes : Anti-HDAC9 antibody [EPR5223] (ab109446) at 1/1000 dilution (Purified)

Lane 1 : Raji (Human Burkitt's lymphoma B lymphocyte) whole cell lysate
Lane 2 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate

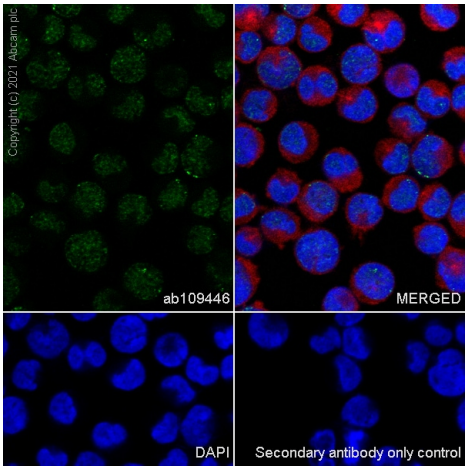
Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 111 kDa



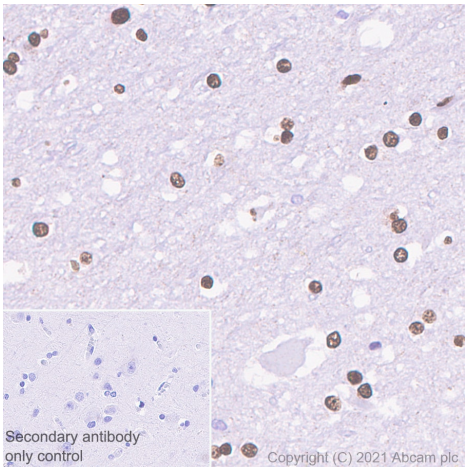
Flow Cytometry (Intracellular) - Anti-HDAC9 antibody [EPR5223] (ab109446)

Flow Cytometry analysis of K-562 (Human chronic myelogenous leukemia lymphoblast) cells labelling HDAC9 with Purified ab109446 at 1:100 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



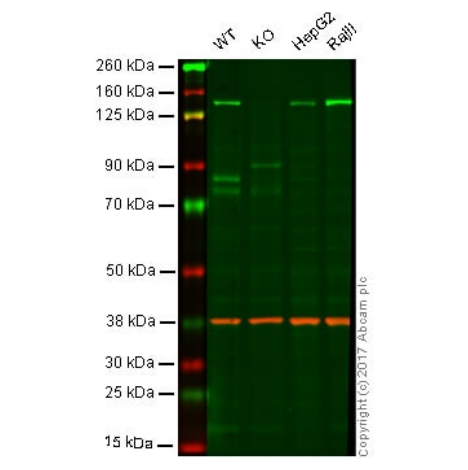
Immunocytochemistry/ Immunofluorescence - Anti-HDAC9 antibody [EPR5223] (ab109446)

Immunocytochemistry analysis of K-562 (Human chronic myelogenous leukemia lymphoblast) cells labeling HDAC9 with Purified ab109446 at 1:100 dilution (10 µg/ml). Cells were fixed in 100% Methanol and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HDAC9 antibody [EPR5223] (ab109446)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cerebrum tissue sections labeling HDAC9 with Purified ab109446 at 1:1000 dilution (1.10 µg/ml). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) . Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.



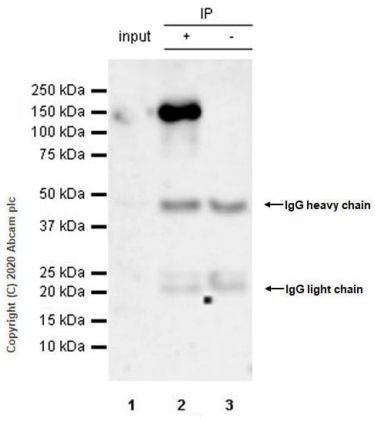
Western blot - Anti-HDAC9 antibody [EPR5223] (ab109446)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)
Lane 2: HDAC9 (KO) knockout HAP1 whole cell lysate (20 µg)
Lane 3: HepG2 whole cell lysate (20 µg)
Lane 4: Raji whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab109446 observed at 140 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab109446 was shown to specifically recognize HDAC9 in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when HDAC9 knockout samples were usedexamined. Wild-type and HDAC9 knockout samples were

subjected to SDS-PAGE. Ab109446 and **ab8245** (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/10,000 dilution and 1/10,000 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 1/10,000 dilution for 1 hour at room temperature before imaging.



Immunoprecipitation - Anti-HDAC9 antibody [EPR5223] (ab109446)

HDAC9 was immunoprecipitated from 0.35 mg K-562 (human chronic myelogenous leukemia lymphoblast) whole cell lysate with ab109446 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using 260035 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(**ab131366**) was used at 1/5000 dilution.

Lane 1: K-562 whole cell lysate 10 µg

Lane 2: K-562 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab109446 in K-562 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 111 seconds.

Anti-HDAC9 antibody [EPR5223] (ab109446)

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