




Anti-HDAC4 antibody [HDAC-144] ab12171

KO 評価済

★★★★☆ 4 Abreviews 8 References 画像数 2

製品の概要

製品名	Anti-HDAC4 antibody [HDAC-144]
製品の詳細	Mouse monoclonal [HDAC-144] to HDAC4
由来種	Mouse
アプリケーション	適用あり: WB
種交差性	交差種: Mouse, Rat, Human 交差が予測される動物種: Chicken 
免疫原	Synthetic peptide: MSSQSHPDGLSGRDQPVEL , corresponding to amino acids 1-19 of Human HDAC4 conjugated to KLH with C-terminal added lysine. <div>  Run BLAST with  Run BLAST with </div>
ポジティブ・コントロール	WB: HeLa, NIH/3T3, P19, Jurkat and PC-12 cell lysates; Rat brain lysate. Total cell extracts of NIH3T3 fibroblast cells.
特記事項	<p>This product was changed from ascites to tissue culture supernatant on 23/05/2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.</p> <p>Storage in frost-free freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.</p>

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: 7.40 Preservative: 0.0975% Sodium azide Constituent: 0.0268% PBS
精製度	Tissue culture supernatant
ポリ/モノ	モノクローナル
クローン名	HDAC-144
アイソタイプ	IgG2a

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ab12171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。

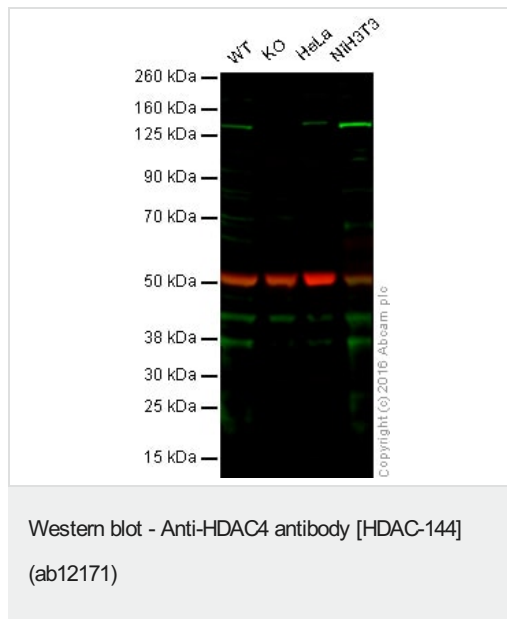
アプリケーション	Abreviews	特記事項
WB	★★★★☆ (3)	Use at an assay dependent concentration. Detects a band of approximately 140 kDa (predicted molecular weight: 119 kDa).

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. Histone deacetylases act via the formation of large multiprotein complexes. Involved in muscle maturation via its interaction with the myocyte enhancer factors such as MEF2A, MEF2C and MEF2D.
組織特異性	Ubiquitous.
関連疾患	Defects in HDAC4 are the cause of brachydactyly-mental retardation syndrome (BDMR) [MIM:600430]. A syndrome resembling the physical anomalies found in Albright hereditary osteodystrophy. Common features are mild facial dysmorphism, congenital heart defects, distinct brachydactyly type E, mental retardation, developmental delay, seizures, autism spectrum disorder, and stocky build. Soft tissue ossification is absent, and there are no abnormalities in parathyroid hormone or calcium metabolism.
配列類似性	Belongs to the histone deacetylase family. HD type 2 subfamily.
ドメイン	The nuclear export sequence mediates the shuttling between the nucleus and the cytoplasm.
翻訳後修飾	Phosphorylated by CaMK4 at Ser-246, Ser-467 and Ser-632. Phosphorylation at other residues is required for the interaction with 14-3-3. Sumoylation on Lys-559 is promoted by the E3 SUMO-protein ligase RANBP2, and prevented by phosphorylation by CaMK4.
細胞内局在	Nucleus. Cytoplasm. Shuttles between the nucleus and the cytoplasm. Upon muscle cells differentiation, it accumulates in the nuclei of myotubes, suggesting a positive role of nuclear HDAC4 in muscle differentiation. The export to cytoplasm depends on the interaction with a 14-3-

3 chaperone protein and is due to its phosphorylation at Ser-246, Ser-467 and Ser-632 by CaMK4. The nuclear localization probably depends on sumoylation.

画像



Lane 1: Wild-type HAP1 cell lysate (40 µg)

Lane 2: HDAC4 knockout HAP1 cell lysate (40 µg)

Lane 3: HeLa cell lysate (40 µg)

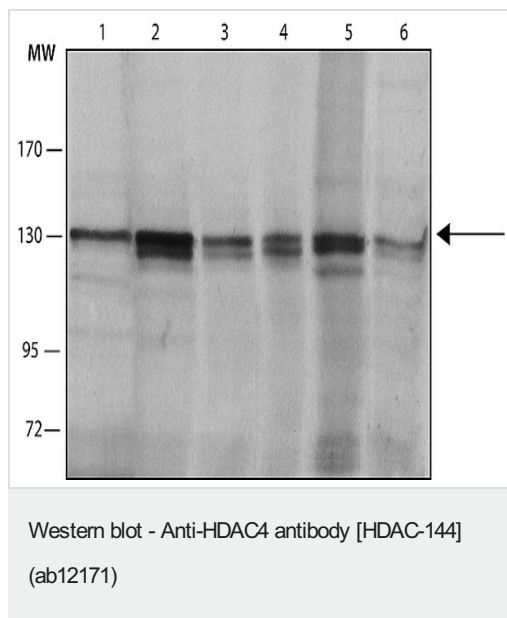
Lane 4: NIH3T3 cell lysate (40 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab12171 observed at 140 kDa. Red - loading control, **ab176560**, observed at 52 kDa.

ab12171 was shown to recognize HDAC4 when HDAC4 knockout samples were used, along with additional cross-reactive bands.

Wild-type and HDAC4 knockout samples were subjected to SDS-PAGE. Ab12171 and **ab176560** (loading control to alpha tubulin) were diluted at 1 µg/ml and 1:10,000 dilution respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (**ab216777**) secondary antibodies at 1:10,000 dilution for 1 hour at room temperature before imaging.

This image was generated using the ascites version of the product.



All lanes : Anti-HDAC4 antibody [HDAC-144] (ab12171) at 1 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

Lane 2 : NIH/3T3 (mouse embryo fibroblast cell line) cell lysate

Lane 3 : P19 cell lysate

Lane 4 : Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate

Lane 5 : Rat brain lysate

Lane 6 : PC-12 (rat adrenal gland pheochromocytoma cell line) cell lysate

Secondary

All lanes : Goat Anti-Mouse IgG-Peroxidase

Developed using the ECL technique.

Predicted band size: 119 kDa

This image was generated using the ascites version of the product.

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