


Anti-CREB antibody [LB9] ab178322

KO 評価済

★★★★★ 1 Abreviews 15 References 画像数 8

製品の概要

製品名	Anti-CREB antibody [LB9]
製品の詳細	Mouse monoclonal [LB9] to CREB
由来種	Mouse
アプリケーション	適用あり: ICC/IF, WB, IP, IHC-P
種交差性	交差種: Mouse, Rat, Human, African green monkey 交差が予測される動物種: Non human primates 
免疫原	Recombinant full length protein corresponding to Human CREB aa 1-341. Sequence:

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MTMESGAENQ QSGDAAVTEA ENQQMTVQAQ
PQIATLAQVS MPAAHATSSA PTVTLVQLPN
GQTVQVHGV I QAAQPSVIQS PQVQTVQSSC
KDLKRLFSGT QISTIAESED SQESVDSVTD
SQRREILSR RPSYRKILND LSSDAPGVPR
IEEEKSEET SAPAITTVTV PTPIYQTSSG
QYIAITQGGA IQLANNGTDG VQGLQTLTMT
NAAATQPGTT ILQYAQTDDG QQILVPSNQV
VVQAASGDVQ TYQIRTAPTS TIAPGVVMAS
SPALPTQPAE EAARKREVRL MKNREAAREC
RRKKKEYVKC LENRVAVLEN QNKTLIEELK
ALKDLYCHKS D
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Database link: [P16220](#)

 [Run BLAST with](#)

 [Run BLAST with](#)

ポジティブ・コントロール

HeLa cells; Human bladder and rectal cancer tissues; Human tonsil tissue; Human Jurkat, NIH/3T3, C2C12, MDA-MB-231, T98G, HeLa, 293T, HepG2, A431, A549, K562, MCF7 and U2OS whole cell lysates; Mouse MEF, 3T3L1 and C2C12 whole cell lysates; Rat NRK whole cell lysate; Monkey COS7 whole cell lysate.

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 long term. Avoid freeze / thaw cycle.
バッファー	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	LB9
アイソタイプ	IgG1

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ab178322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
ICC/IF		1/500.
WB	★★★★★ (1)	1/500. Detects a band of approximately 43 kDa (predicted molecular weight: 36 kDa).
IP		Use at an assay dependent concentration. Suggested use 2 µg.
IHC-P		1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

ターゲット情報

機能	This protein binds the cAMP response element (CRE), a sequence present in many viral and cellular promoters. CREB stimulates transcription on binding to the CRE. Transcription activation is enhanced by the TORC coactivators which act independently of Ser-133 phosphorylation. Implicated in synchronization of circadian rhythmicity.
関連疾患	Defects in CREB1 may be a cause of angiomatoid fibrous histiocytoma (AFH) [MIM:612160]. A distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. Characteristic microscopic features include lobulated sheets of histiocyte-like cells intimately associated with areas of hemorrhage and cystic pseudovascular spaces, as well as a striking cuffing of inflammatory cells, mimicking a lymph node metastasis. Note=A chromosomal aberration involving CREB1 is found in a patient with angiomatoid fibrous histiocytoma. Translocation t(2;22)(q33;q12) with CREB1 generates a EWSR1/CREB1 fusion gene that is most common genetic abnormality in this tumor type.

配列類似性

Belongs to the bZIP family.
Contains 1 bZIP domain.
Contains 1 KID (kinase-inducible) domain.

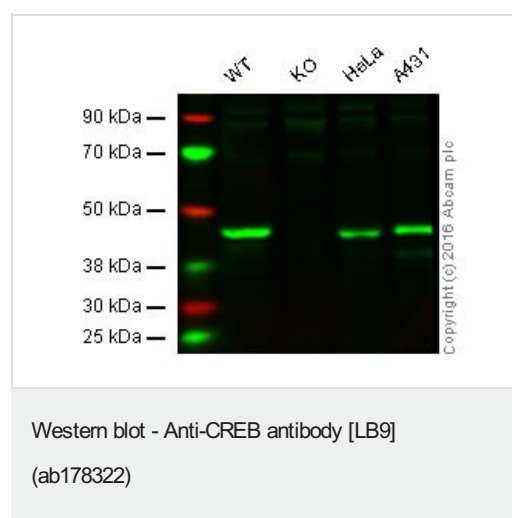
翻訳後修飾

Stimulated by phosphorylation. Phosphorylation of both Ser-133 and Ser-142 in the SCN regulates the activity of CREB and participates in circadian rhythm generation. Phosphorylation of Ser-133 allows CREBBP binding (By similarity). Phosphorylated upon DNA damage, probably by ATM or ATR.
Sumoylated by SUMO1. Sumoylation on Lys-304, but not on Lys-285, is required for nuclear localization of this protein. Sumoylation is enhanced under hypoxia, promoting nuclear localization and stabilization.

細胞内局在

Nucleus.

画像



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

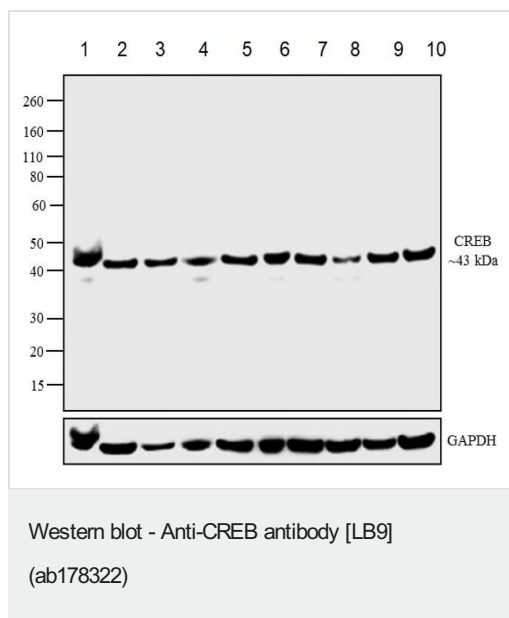
Lane 2: CREB knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

Lane 4: A431 cell lysate (20 µg)

Lanes 1 -4: Merged signal (red and green). Green - ab178322 observed at 44 kDa. Red - loading control, **ab18058**, observed at 124 kDa.

ab178322 was shown to recognize CREB when CREB knockout samples were used, along with additional cross-reactive bands. Wild-type and CREB knockout samples were subjected to SDS-PAGE. Ab178322 and **ab18058** (loading control to Vinculin) were diluted at 1/250 and 1/10,000 dilution respectively and incubated overnight at 4°C. Blots were developed with IRDye® 800CW Goat anti-Rabbit IgG (H + L) and IRDye® 680 Goat anti-Mouse IgG (H + L) secondary antibodies at 1/10,000 dilution for 1 hour at room temperature before imaging.



All lanes : Anti-CREB antibody [LB9] (ab178322) at 1/500 dilution

Lane 1 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Lane 2 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 3 : K-562 (Human chronic myelogenous leukemia lymphoblast cell line) whole cell lysate

Lane 4 : Hep G2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lane 5 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lane 6 : C2C12 whole cell lysate

Lane 7 : U-2 OS (Human bone osteosarcoma epithelial cell line) whole cell lysate

Lane 8 : A549 (Human lung carcinoma cell line) whole cell lysate

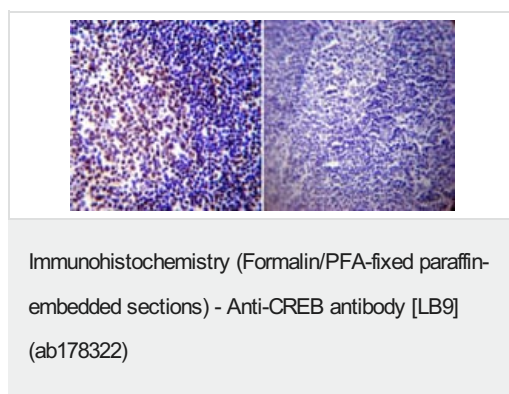
Lane 9 : MDA-MB-231 (Human breast adenocarcinoma cell line) whole cell lysate

Lane 10 : T98G whole cell lysate

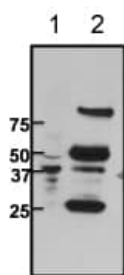
Lysates/proteins at 30 µg per lane.

Predicted band size: 36 kDa

Observed band size: 43 kDa



Immunohistochemical analysis of deparaffinized Human tonsil tissue labeling CREB with ab178322 at 1/100 dilution followed by DAB staining.



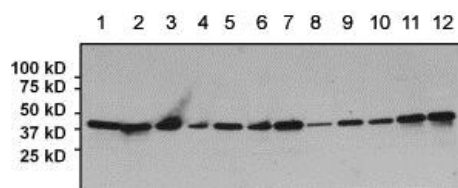
Immunoprecipitation - Anti-CREB antibody [LB9]
(ab178322)

Immunoprecipitation analysis of CREB was performed on untreated 293T cells. The antigen:antibody complex was formed by binding 500µg whole cell lysate with 2µg ab178322 and captured on 50µl Protein A/G Plus Agarose.

Lane 1: 293T lysate

Lane 2: IP of 293T lysate

WB detection used ab178322 at 1/1000 followed with a goat anti-mouse-HRP secondary antibody at 1/20,000.



Western blot - Anti-CREB antibody [LB9]
(ab178322)

All lanes : Anti-CREB antibody [LB9] (ab178322) at 1/500 dilution

Lane 1 : HeLa whole cell lysate

Lane 2 : 293T whole cell lysate

Lane 3 : A431 whole cell lysate

Lane 4 : A549 whole cell lysate

Lane 5 : MEF whole cell lysate

Lane 6 : MCF7 whole cell lysate

Lane 7 : U2OS whole cell lysate

Lane 8 : K562 whole cell lysate

Lane 9 : COS7 whole cell lysate

Lane 10 : 3T3L1 whole cell lysate

Lane 11 : C2C12 whole cell lysate

Lane 12 : NRK whole cell lysate

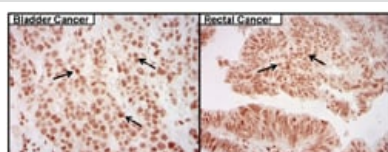
Lysates/proteins at 25 µg per lane.

Secondary

All lanes : goat anti-mouse-HRP at 1/20000 dilution

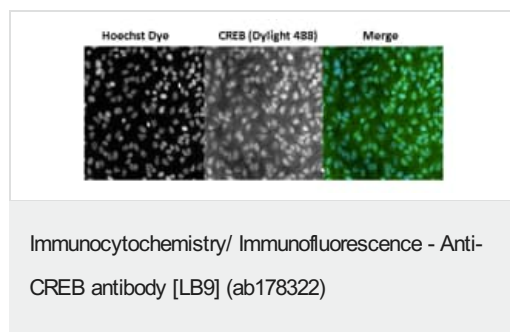
Developed using the ECL technique.

Predicted band size: 36 kDa

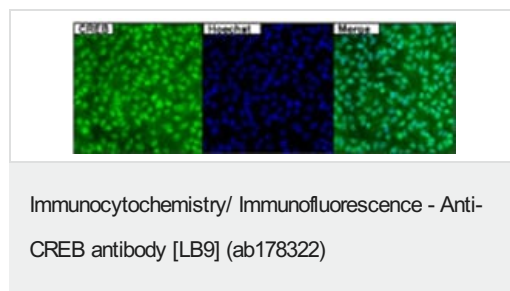


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CREB antibody [LB9]
(ab178322)

Immunohistochemical analysis of deparaffinized Human bladder cancer (left) and rectal cancer (right) tissues labeling CREB with ab178322 at 1/200 dilution followed by DAB staining.



Immunofluorescent analysis of untreated HeLa cells (formalin-fixed, 0.1% Triton X-100 permeabilized) labeling CREB with ab178322 at 1/400 dilution (green) followed with DyLight 488 goat anti-mouse IgG secondary antibody at 1/400 dilution. Nuclei (blue) were stained with Hoechst 33342 dye.



Immunofluorescent analysis of untreated HeLa cells (formalin-fixed, 0.1% Triton X-100 permeabilized) labeling CREB with ab178322 at 1/500 dilution (green) followed with DyLight 488 goat anti-mouse IgG secondary antibody at 1/400 dilution. Nuclei (blue) were stained with Hoechst 33342 dye.

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