

Product datasheet

Anti-CREB antibody [E306] ab32515

敲除验证
重组
RabMAb

★★★★★
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概述

| | |
|--------------|--|
| 产品名称 | Anti-CREB抗体[E306] |
| 描述 | 兔单克隆抗体[E306] to CREB |
| 宿主 | Rabbit |
| 特异性 | This antibody recognizes CREB, and can also recognize the splice isoform of CREB. |
| 经测试应用 | 适用于: WB, ICC/IF, IHC-P, IP 不适用于: Flow Cyt |
| 种属反应性 | 与反应: Mouse, Rat, Human 预测可用于: Cow |
| 免疫原 | Synthetic peptide within Human CREB aa 250-350. The exact sequence is proprietary. |
| 阳性对照 | ICC/IF: PC 12 cells. WB: A431 cell lysate. IHC-P: Prostatic carcinoma tissue. |
| 常规说明 | Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab[®] patents This product is a recombinant rabbit monoclonal antibody. |

性能

| | |
|-------------|---|
| 形式 | Liquid |
| 存放说明 | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. |
| 存储溶液 | pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol, 0.05% BSA |
| 克隆 | 单克隆 |
| 克隆编号 | E306 |
| 同种型 | IgG |

应用

Our [Abpromise guarantee](#) covers the use of **ab32515** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| 应用 | Ab评论 | 说明 |
|--------|-------|--|
| WB | ★★★★★ | 1/500 - 1/1000. Detects a band of approximately 40 kDa (predicted molecular weight: 37 kDa). |
| ICC/IF | ★★★★★ | 1/250 - 1/500. |
| IHC-P | | Use at an assay dependent concentration. |
| IP | | 1/80. |

应用说明 Is unsuitable for Flow Cyt.

靶标

功能 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.

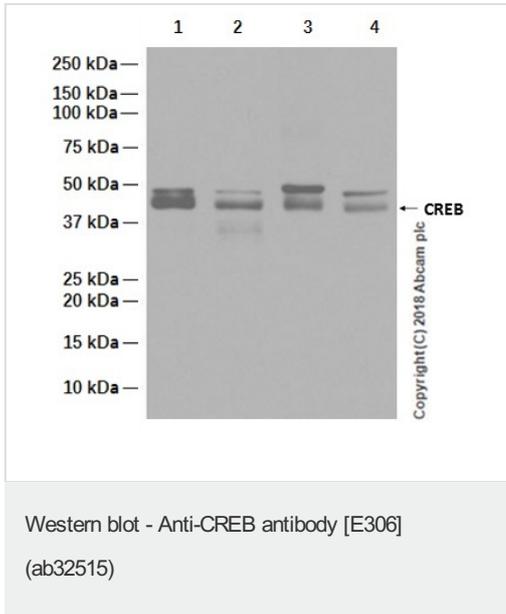
疾病相关 Defects in CREB1 may be a cause of angiomatoid fibrous histiocytoma (AFH) [MIM:612160]. A distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. Characteristic microscopic features include lobulated sheets 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.

序列相似性 Belongs to the bZIP family.
Contains 1 bZIP domain.
Contains 1 KID (kinase-inducible) domain.

翻译后修饰 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.

细胞定位 Nucleus.

图片



All lanes : Anti-CREB antibody [E306] (ab32515) at 0.03 µg/ml

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2 : A431 (Human epidermoid carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Lane 4 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

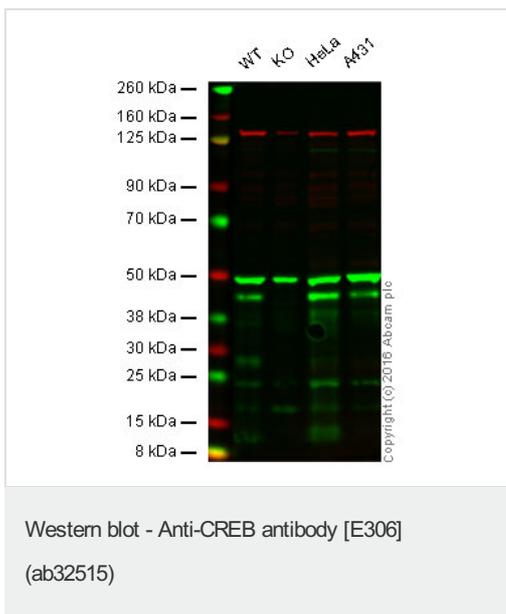
Predicted band size: 37 kDa

Observed band size: 40 kDa

[why is the actual band size different from the predicted?](#)

Exposure time: 15 seconds

Blocking and diluting buffer: 5% NFDM/TBST.



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

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

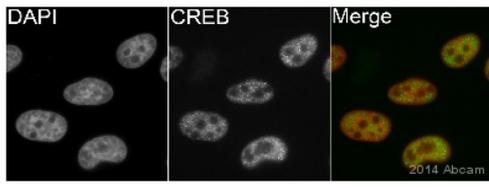
Lane 3: HeLa cell lysate (20 µg)

Lane 4: A431 cell lysate (20 µg)

Lanes 1 -4: Merged signal (red and green). Green - ab32515 observed at 44 kDa. Red - loading control, ab18058, observed at 214 kDa.

ab32515 was shown to recognize CREB in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed when CREB knockout samples examined. Wild-type and knockout samples were subjected to SDS-PAGE. ab32515 and ab18058 (loading control to Vinculin) diluted to 1/500 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed

([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye[™] 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

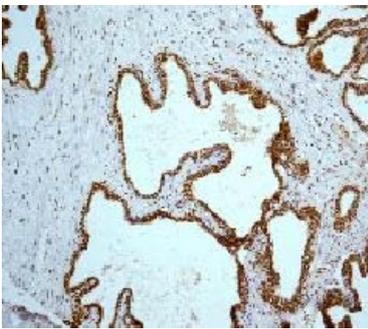


Immunocytochemistry/ Immunofluorescence - Anti-CREB antibody [E306] ([ab32515](#))

This image is courtesy of an Abreview submitted by Kirk McManus

[ab32515](#) staining CREB in HeLa cells by ICC/IF

(Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde and permeabilized with 0.5% Triton X-100 in PBS. Samples were incubated with primary antibody (1/500 in PBS) for 1 hour at 22°C. [ab150081](#), an Alexa Fluor[®] 488-conjugated goat anti-rabbit IgG polyclonal (1/200) was used as the secondary antibody. Counterstained with DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CREB antibody [E306] ([ab32515](#))

[Ab32515](#), at a 1/500 dilution, staining CREB in paraffin embedded prostatic carcinoma tissue sections by Immunohistochemistry.

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