

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, Flow Cyt, IP
种属反应性	与反应: Mouse, Rat, Human 预测可用于: Cow
免疫原	Synthetic peptide (Human), corresponding to residues before DNA binding motif of human CREB.
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	PBS 49%, Sodium azide 0.01%, Glycerol 50%, BSA 0.05%
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.

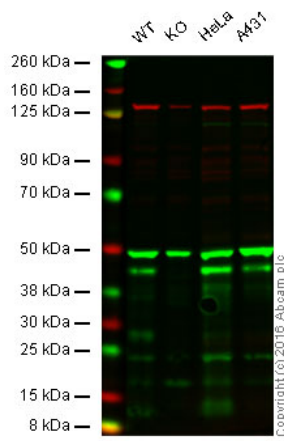
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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.
Flow Cyt		1/40. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP		1/80.

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



Western blot - Anti-CREB antibody [E306]
(ab32515)

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

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

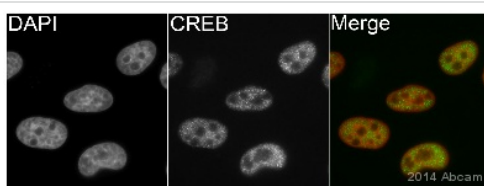
Lane 3: HeLa cell lysate (20 µg)

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.

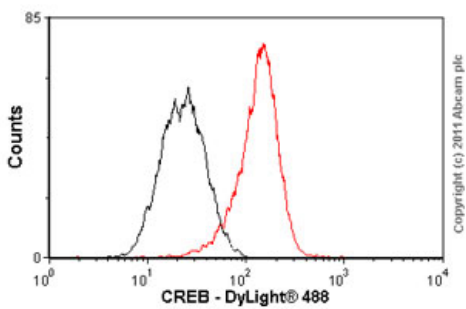
ab150081, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG polyclonal (1/200) was used as the secondary antibody.

Counterstained with DAPI.



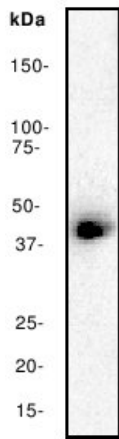
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CREB antibody [E306] (ab32515)

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



Flow Cytometry - Anti-CREB antibody [E306] (ab32515)

Overlay histogram showing HEK293 cells stained with ab32515 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab32515, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HEK293 cells fixed with 100% methanol (5 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.



Anti-CREB antibody [E306] (ab32515) at
1/1000 dilution + A431 cell lysate

Predicted band size: 37 kDa

Observed band size: 40 kDa

Western blot - Anti-CREB antibody [E306]
(ab32515)

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