Anti-CREB1 Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

Catalog # M014610

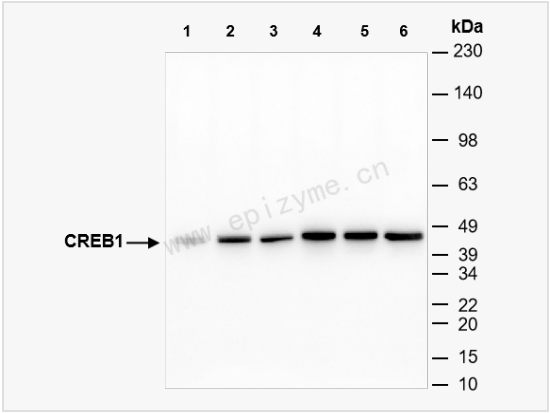
Product Information

Application	IF (Cell)/ICC, IHC-P/IF (Tissue-P), ELISA, WB
Reactivity	Human, Mouse (Cell)
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Mouse
Clonality	Monoclonal
Clone No.	12I90N95
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human CREB1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-CREB1 Mouse mAb [12I90N95] is for research use only and not for use in diagnostic or therapeutic procedures.

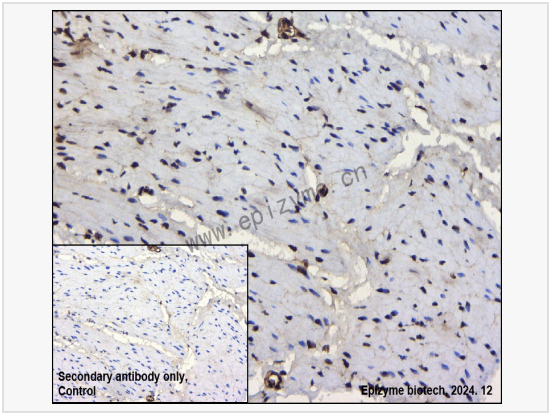
Protein Information

Synonyms	Active transcription factor CREB, cAMP response element binding protein 1, cAMP response element binding protein, cAMP responsive element binding protein 1, cAMP-responsive element-binding protein 1, CREB, CREB-1, CREB1, CREB1_HUMAN, Cyclic AMP-responsive element-binding protein 1, MGC9284, OTTHUMP00000163864, OTTHUMP00000163865, OTTHUMP00000206660, OTTHUMP00000206662, OTTHUMP00000206667, Transactivator protein.
Calculated MW	Calculated MW: 36 kDa; Observed MW: 43 kDa
Uniprot ID	P16220
Gene ID	1385
Background	CREB1, also known as cAMP Responsive Element Binding Protein 1, is a crucial transcription factor encoded by the CREB1 gene. It is a member of the basic leucine zipper (bZIP) family of transcription factors and plays a significant role in regulating gene expression in response to various cellular signals. CREB1 is involved in the regulation of many central nervous system functions, including neurogenesis, neuronal survival, and long-term potentiation. It binds to cAMP responsive elements (CRE) in the promoters of target genes and is activated through phosphorylation, particularly at serine residue 133 (Ser133), which is located in the kinase-inducible domain (KID). This phosphorylation leads to the recruitment of transcriptional co-activators such as CREB-binding protein (CBP) and p300, initiating the transcription of target genes.
Cellular Location	Nucleus.

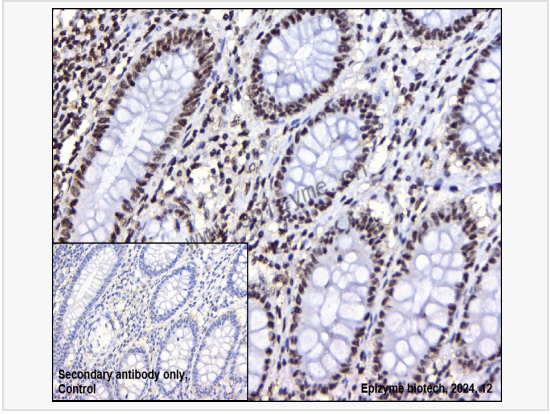
Validation Images



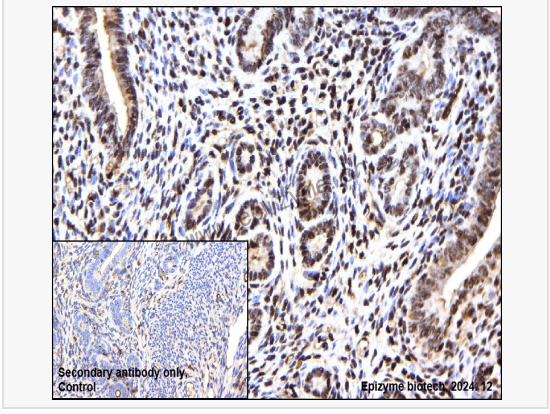
Western Blot - Anti-CREB1 Mouse mAb [12I90N95]
All lanes: M014610 at 1:1,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: A431 (Human epidermoid teratoma cell line) whole cell lysates
Lane 5: T24 (Human bladder cancer epithelial cell) whole cell lysates
Lane 6: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution
Predicted band size: 36 kDa
Observed band size: 43 kDa
Developed using the ECL technique (Cat. No. SQ201).



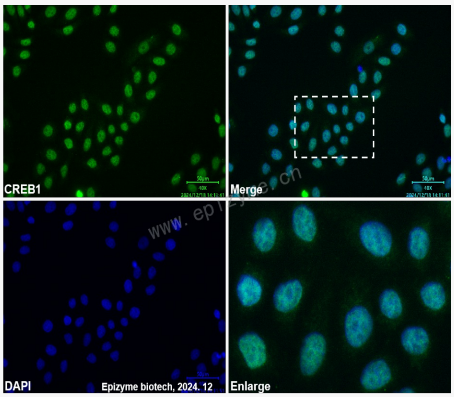
Immunohistochemistry - Anti-CREB1 Mouse mAb [12I90N95]
Sample: Paraformaldehyde-fixed, paraffin embedded rat bladder tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: M014610 at 1:200 dilution
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-CREB1 Mouse mAb [12I90N95]
Sample: Paraformaldehyde-fixed, paraffin embedded human colonic cancer tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: M014610 at 1:200 dilution
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-CREB1 Mouse mAb [12I90N95]
Sample: Paraformaldehyde-fixed, paraffin embedded mouse uterus tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: M014610 at 1:200 dilution
Secondary antibody: Goat Anti-Mouse IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.
Counter stained with hematoxylin.
Positive/negative staining were presented.
Only the secondary antibody was used as the negative control.



Immunofluorescence - Anti-CREB1 Mouse mAb [12I90N95]
Sample: Hela cells
The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
Primary antibody: M014610 at 1:100 dilution
Secondary antibody: Goat anti-Mouse (488) at 1:1,000 dilution (shown in green)
Nuclei were stained with DAPI (shown in blue).