

CREB1 Polyclonal Antibody

Catalog number: 12208-1-AP

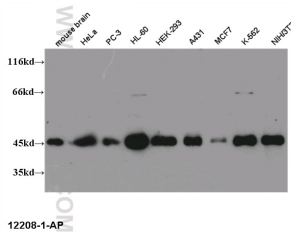
Size: 43 µg/150 µl

Source: Rabbit

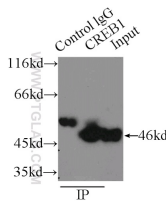
Isotype: IgG

Synonyms:

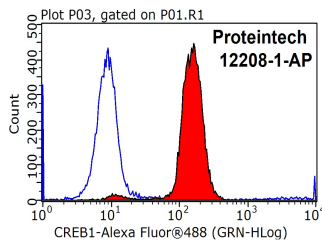
CREB1; CREB, CREB 1, CREB1



WB result of 12208-1-AP (CREB1 antibody) with various lysates at dilution of 1:1,500.



IP Result of anti-CREB1 (IP:12208-1-AP, 3µg; Detection:12208-1-AP 1:600) with HEK-293 cells lysate 2000µg.



1X10⁶ HEK-293 cells were stained with 0.2µg CREB1 antibody (12208-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.

Background

CREB1, also named as CREB, belongs to the bZIP family, containing one bZIP domain and one KID (kinase-inducible) domain. 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. This protein is 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. Transcription activation is enhanced by the TORC coactivators which act independently of Ser-133 phosphorylation. CREB1 is 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. Defects in CREB1 may be a cause of angiomatoid fibrous histiocytoma (AFH), a distinct variant of malignant fibrous histiocytoma that typically occurs in children and adolescents and is manifest by nodular subcutaneous growth. 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.

Applications

Tested applications:

ELISA, IP, WB, IF, IHC, FC

Cited applications:

WB

Species specificity:

Human, Mouse, Rat, Monkey; other species not tested.

Cited species:

Rat

Calculated CREB1 MW:

341aa,35 kDa

Observed CREB1 MW:

43-46 kDa

Positive WB detected in

Multi-cells/tissue, COS-7 cells, HEK-293 cells, HeLa cells, Jurkat cells, K-562 cells, mouse brain tissue, mouse lung tissue, NIH/3T3 cells, rat brain tissue

Positive IP detected in

HEK-293 cells

Positive IHC detected in

Human thyroid tissue, human prostate cancer tissue

Positive IF detected in

HEK-293 cells

Positive FC detected in

HEK-293 cells

Recommended dilution:

WB: 1:500-1:5000

IP: 1:200-1:2000

IHC: 1:20-1:200

IF: 1:10-1:100

FC: N/A

Application key: WB = Western blotting, IHC = Immunohistochemistry, IF = Immunofluorescence, IP = Immunoprecipitation

Immunogen information

Immunogen:

Ag2852

GenBank accession number: BC010636

Gene ID (NCBI):

1385

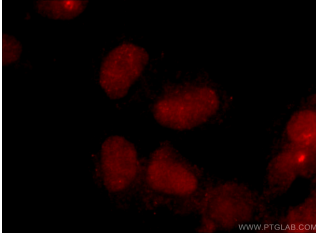
Full name:

CAMP responsive element binding protein 1

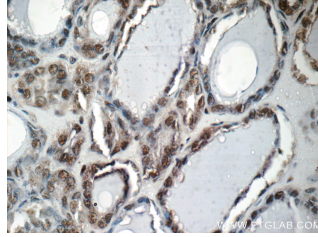
Product information

Purification method:
Storage:

Antigen affinity purification
PBS with 0.1% sodium azide and 50% glycerol pH
7.3. Store at -20°C.



Immunofluorescent analysis of HEK-293 cells using 12208-1-AP(CREB1 Antibody) at dilution of 1:25 and Rhodamine-Goat anti-Rabbit IgG



Immunohistochemistry of paraffin-embedded human thyroid tissue slide using 12208-1-AP(CREB1 Antibody) at dilution of 1:50 (under 40x lens)