

CREB3L3 (F-9): sc-377331

BACKGROUND

CREB3L3 (cAMP-responsive element-binding protein 3-like protein 3), also known as CREBH or HYST1481, is a 461 amino acid single-pass type II membrane protein that localizes to the endoplasmic reticulum (ER) and, in response to ER stress, is cleaved and translocated to the nucleus. Expressed exclusively in liver, CREB3L3 functions as a transcription factor that, during ER stress, is thought to activate genes that are involved in both the unfolded protein response and the acute phase response (APR). Additionally, CREB3L3 is under-expressed in hepatocellular carcinoma, suggesting a possible role as a tumor suppressor. CREB3L3 functions as a dimer and contains one leucine zipper domain, a KDEL-like sequence and a bZIP domain, through which it conveys its DNA binding ability. Three isoforms of CREB3L3 exist due to alternative splicing events.

REFERENCES

- Omori, Y., et al. 2001. CREB-H: a novel mammalian transcription factor belonging to the CREB/ATF family and functioning via the box-B element with a liver-specific expression. *Nucleic Acids Res.* 29: 2154-2162.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611998. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: Creb3l3 (mouse) mapping to 10 C1.

SOURCE

CREB3L3 (F-9) is a mouse monoclonal antibody raised against amino acids 1-223 mapping at the N-terminus of CREB3L3 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-377331 X, 200 µg/0.1 ml.

APPLICATIONS

CREB3L3 (F-9) is recommended for detection of CREB3L3 of mouse origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CREB3L3 siRNA (m): sc-77022, CREB3L3 shRNA Plasmid (m): sc-77022-SH and CREB3L3 shRNA (m) Lentiviral Particles: sc-77022-V.

CREB3L3 (F-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

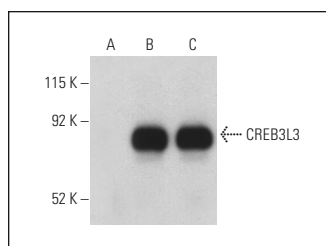
Molecular Weight of CREB3L3: 50 kDa.

Positive Controls: CREB3L3 (m): 293T Lysate: sc-119449.

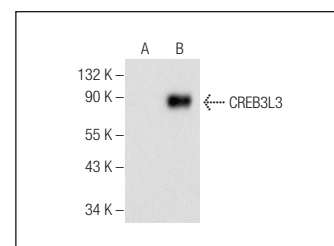
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CREB3L3 (F-9): sc-377331. Western blot analysis of CREB3L3 expression in non-transfected: sc-117752 (A), mouse CREB3L3 transfected: sc-119448 (B) and mouse CREB3L3 transfected: sc-119449 (C) 293T whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



CREB3L3 (F-9): sc-377331. Western blot analysis of CREB3L3 expression in non-transfected: sc-117752 (A) and mouse CREB3L3 transfected: sc-119449 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Huaman, J., et al. 2019. Fibronectin regulation of integrin B1 and SLUG in circulating tumor cells. *Cells* 8: 618.
- Borkham-Kamphorst, E., et al. 2020. Chronic carbon tetrachloride applications induced hepatocyte apoptosis in lipocalin 2 null mice through endoplasmic reticulum stress and unfolded protein response. *Int. J. Mol. Sci.* 21: 5230.
- Kawakubo-Yasukochi, T., et al. 2021. Hepatic glycogenolysis is determined by maternal high-calorie diet via methylation of Pygl and this is modified by osteocalcin administration in mice. *Mol. Metab.* 54: 101360.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.