

CREB3L3 (E-2): sc-377332

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.

CHROMOSOMAL LOCATION

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

SOURCE

CREB3L3 (E-2) 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 IgG_{2a} 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-377332 X, 200 µg/0.1 ml.

CREB3L3 (E-2) is available conjugated to agarose (sc-377332 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377332 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377332 PE), fluorescein (sc-377332 FITC), Alexa Fluor® 488 (sc-377332 AF488), Alexa Fluor® 546 (sc-377332 AF546), Alexa Fluor® 594 (sc-377332 AF594) or Alexa Fluor® 647 (sc-377332 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377332 AF680) or Alexa Fluor® 790 (sc-377332 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CREB3L3 (E-2) 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), immunohistochemistry (including paraffin-embedded sections) (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 (E-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

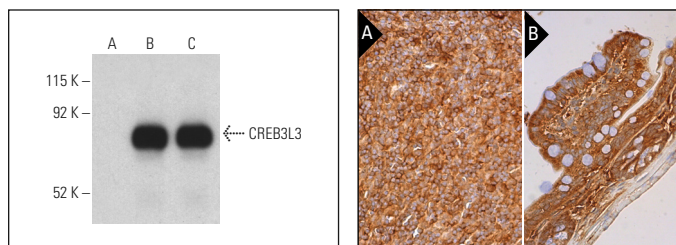
Molecular Weight of CREB3L3: 50 kDa.

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CREB3L3 (E-2): sc-377332. 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 (E-2): sc-377332. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymph node tissue showing cytoplasmic staining of cells in germinal center and cells in non-germinal center (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse small intestine tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Williams, E.G., et al. 2018. Quantifying and localizing the mitochondrial proteome across five tissues in a mouse population. *Mol. Cell. Proteomics* 17: 1766-1777.
- Pappas, S.S., et al. 2018. TorsinA dysfunction causes persistent neuronal nuclear pore defects. *Hum. Mol. Genet.* 27: 407-420.
- Zhang, N., et al. 2019. Diallyl disulfide attenuates non-alcoholic steatohepatitis by suppressing key regulators of lipid metabolism, lipid peroxidation and inflammation in mice. *Mol. Med. Rep.* 20: 1363-1372.
- Junli, Z., et al. 2022. The role and mechanism of CREBH regulating SIRT3 in metabolic associated fatty liver disease. *Life Sci.* 306: 120838.

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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA