

CREB3L2 (h3): 293T Lysate: sc-370243

BACKGROUND

CREB3L2 (cAMP responsive element binding protein 3-like 2), also known as BBF2H7, is a 520 amino acid single-pass type II membrane protein that localizes to the endoplasmic reticulum and contains one bZIP domain. Expressed in a wide variety of tissues, including lung, spleen, placenta and intestine, CREB3L2 functions as a transcriptional activator that binds DNA as a dimer and is thought to act during endoplasmic reticulum stress, specifically by activating the transcription of unfolded protein response target genes. Additionally, CREB3L2 is thought to be involved in preventing the accumulation of unfolded proteins in damaged neurons, thereby playing a role in neuronal maintenance. Chromosomal rearrangements that involve the CREB3L2 gene are associated with low grade fibromyxoid sarcomas (LGFMSs). Multiple isoforms of CREB3L2 exist due to alternative splicing events.

REFERENCES

1. Bejarano, P.A., et al. 2000. Hyalinizing spindle cell tumor with giant rosettes—a soft tissue tumor with mesenchymal and neuroendocrine features. An immunohistochemical, ultrastructural, and cytogenetic analysis. *Arch. Pathol. Lab. Med.* 124: 1179-1184.
2. Reid, R., et al. 2003. Low-grade fibromyxoid sarcoma and hyalinizing spindle cell tumor with giant rosettes share a common t(7;16)(q34;p11) translocation. *Am. J. Surg. Pathol.* 27: 1229-1236.
3. Storlazzi, C.T., et al. 2003. Fusion of the FUS and BBF2H7 genes in low grade fibromyxoid sarcoma. *Hum. Mol. Genet.* 12: 2349-2358.
4. Panagopoulos, I., et al. 2004. The chimeric FUS/CREB3L2 gene is specific for low-grade fibromyxoid sarcoma. *Genes Chromosomes Cancer* 40: 218-228.
5. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608834. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Panagopoulos, I., et al. 2007. Characterization of the native CREB3L2 transcription factor and the FUS/CREB3L2 chimera. *Genes Chromosomes Cancer* 46: 181-191.
7. Kondo, S., et al. 2007. BBF2H7, a novel transmembrane bZIP transcription factor, is a new type of endoplasmic reticulum stress transducer. *Mol. Cell. Biol.* 27: 1716-1729.
8. Lui, W.O., et al. 2008. CREB3L2-PPAR γ fusion mutation identifies a thyroid signaling pathway regulated by intramembrane proteolysis. *Cancer Res.* 68: 7156-7164.

CHROMOSOMAL LOCATION

Genetic locus: CREB3L2 (human) mapping to 7q33.

PRODUCT

CREB3L2 (h3): 293T Lysate represents a lysate of human CREB3L2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

CREB3L2 (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive CREB3L2 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

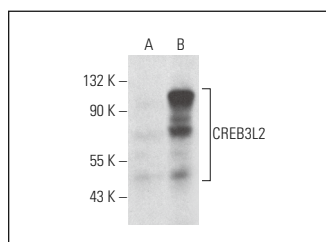
CREB3L2 (C-10): sc-515018 is recommended as a positive control antibody for Western Blot analysis of enhanced human CREB3L2 expression in CREB3L2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

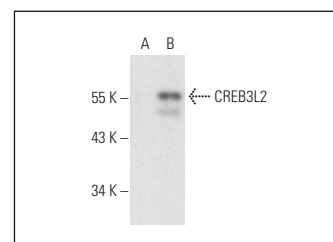
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



CREB3L2 (C-10): sc-515018. Western blot analysis of CREB3L2 expression in non-transfected: sc-117752 (A) and human CREB3L2 transfected: sc-370243 (B) 293T whole cell lysates.



CREB3L2 (A-3): sc-515816. Western blot analysis of CREB3L2 expression in non-transfected: sc-117752 (A) and human CREB3L2 transfected: sc-370243 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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