



XBP-1 (h): 293 Lysate: sc-110810

BACKGROUND

The X-box binding protein-1 (XBP-1 or hXBP-1), also designated TREB5, belongs to the basic region/leucine zipper (bZIP) family of transcription factors. XBP-1 was first characterized as a protein that binds to the HLA-DR α promoter in B cells. XBP-1 recognizes the cAMP responsive element (CRE) in enhancers of human T cell leukemia virus and major histocompatibility complex class II genes and activates transcription of these genes. It is expressed at high levels in developing bone and its levels are modulated during osteoblast development, suggesting a role in regulation of expression of osteoblast-specific genes. In addition to binding to CRE sequences, XBP-1 has been shown to bind to tPA response elements (TREs).

REFERENCES

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4. Clauss, I.M., et al. 1993. *In situ* hybridization studies suggest a role for the basic region-leucine zipper protein hXBP-1 in exocrine gland and skeletal development during mouse embryogenesis. *Dev. Dyn.* 197: 146-156.
5. Matsuzaki, Y., et al. 1995. Identification of transcriptional activation domain of TREB5, a CREB/ATF family protein that binds to HTLV-1 enhancer. *J. Biochem.* 117: 303-308.
6. Clauss, I.M., et al. 1996. The basic domain/leucine zipper protein hXBP-1 preferentially binds to and transactivates CRE-like sequences containing an ACGT core. *Nucleic Acids Res.* 24: 1855-1864.
7. Fujimoto, T., et al. 2003. Upregulation and overexpression of human X-box binding protein 1 (hXBP-1) gene in primary breast cancers. *Breast Cancer* 10: 301-306.
8. Lee, A.H., et al. 2003. XBP-1 regulates a subset of endoplasmic reticulum resident chaperone genes in the unfolded protein response. *Mol. Cell. Biol.* 23: 7448-7459.
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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.

CHROMOSOMAL LOCATION

Genetic locus: XBP1 (human) mapping to 22q12.1.

PRODUCT

XBP-1 (h): 293 Lysate represents a lysate of human XBP-1 transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

XBP-1 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive XBP-1 antibodies. Recommended use: 10-20 μ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

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