

# LBP1 (327C1a): sc-81310

## BACKGROUND

LBP1 (upstream-binding protein 1), also designated UBP1, LBP1A or LBP1B, is a 540 amino acid protein that belongs to the grh/CP2 family (grainyhead transcription factor family). LBP1 is a transcriptional activator that regulates the placental expression of CYP11A1 and activates the Hemoglobin globin promoter in erythroid cells. LBP1 is responsible for repressing transcription of HIV-1 by binding to and preventing TFIID from interacting with its promoter region. Null expression of LBP1 causes uterine growth retardation in mice embryos suggesting a critical role in extraembryonic angiogenesis. LBP1 localizes to the nucleus and is expressed in adrenal tissue, Hep G2, JEG-3 and HeLa cell lines. It forms two natural variants by alternative splicing. LBP1 can form homodimers as well as heterodimers with LBP-9. LBP-9 suppresses the expression of LBP1.

## REFERENCES

1. Yoon, J.B., Li, G. and Roeder, R.G. 1994. Characterization of a family of related cellular transcription factors which can modulate human immunodeficiency virus type 1 transcription *in vitro*. *Mol. Cell. Biol.* 14: 1776-1785.
2. Parada, C.A., Yoon, J.B. and Roeder, R.G. 1995. A novel LBP1-mediated restriction of HIV-1 transcription at the level of elongation *in vitro*. *J. Biol. Chem.* 270: 2274-2283.
3. Parekh, V., McEwen, A., Barbour, V., Takahashi, Y., Rehg, J.E., Jane, S.M. and Cunningham, J.M. 2004. Defective extraembryonic angiogenesis in mice lacking LBP1A, a member of the grainyhead family of transcription factors. *Mol. Cell. Biol.* 24: 7113-7129.
4. Huang, N. and Miller, W.L. 2005. LBP proteins modulate SF1-independent expression of P450scc in human placental JEG-3 cells. *Mol. Endocrinol.* 19: 409-420.
5. Sato, F., Yasumoto, K., Kimura, K., Numayama-Tsuruta, K. and Sogawa, K. 2005. Heterodimerization with LBP1B is necessary for nuclear localization of LBP1A and LBP1C. *Genes Cells* 10: 861-870.
6. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609784. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: UBP1 (human) mapping to 3p22.3.

## SOURCE

LBP1 (327C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of LBP1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

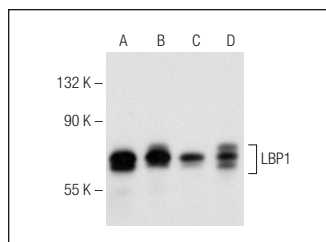
LBP1 (327C1a) is recommended for detection of LBP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for LBP1 siRNA (h): sc-75413, LBP1 shRNA Plasmid (h): sc-75413-SH and LBP1 shRNA (h) Lentiviral Particles: sc-75413-V.

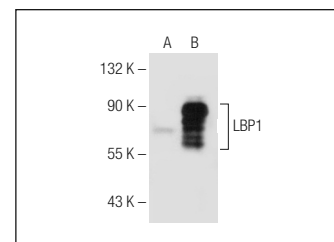
Molecular Weight of LBP1: 60 kDa.

Positive Controls: LBP1 (h): 293T Lysate: sc-369892, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

## DATA



LBP1 (327C1a): sc-81310. Western blot analysis of LBP1 expression in Hep G2 (A), HeLa (B), JEG-3 (C) and SW-13 (D) whole cell lysates.



LBP1 (327C1a): sc-81310. Western blot analysis of LBP1 expression in non-transfected: sc-117752 (A) and human LBP1 transfected: sc-369892 (B) 293T whole cell lysates.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

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