# SANTA CRUZ BIOTECHNOLOGY, INC.

# LBP1 (P-22): sc-133727



#### 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

- 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.
- 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.
- 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.
- 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/
- 7. SWISS-PROT/TrEMBL (Q9NZI7). World Wide Web URL: http://www.expasy.ch/sprot/sprot-top.html

# CHROMOSOMAL LOCATION

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

#### SOURCE

LBP1 (P-22) is an affinity purified rabbit polyclonal antibody raised against synthetic LBP1 peptide of human origin.

# PRODUCT

Each vial contains 50  $\mu g$  IgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

#### **APPLICATIONS**

LBP1 (P-22) is recommended for detection of LBP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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: Daudi cell lysate: sc-2415.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

#### DATA



LBP1 (P-22): sc-133727. Western blot analysis of LBP1 expression in Daudi whole cell lysate.

#### **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 or our catalog for detailed protocols and support products.

MONOS Satisfation Guaranteed

Try **LBP1 (327C1a): sc-81310**, our highly recommended monoclonal alternative to LBP1 (P-22).