

# LBP1 (N-14): sc-70070

## 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

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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 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LBP1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-70070 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-70070 X, 200 µg/0.1 ml.

## APPLICATIONS

LBP1 (N-14) is recommended for detection of LBP1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LBP1 (N-14) is also recommended for detection of LBP1 in additional species, including canine.

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.

LBP1 (N-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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 donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.