

LZIP (N-20): sc-25071

BACKGROUND

HCF-1 is a cellular protein required by VP16, a viral tegument, to activate the herpes simplex virus (HSV) immediate-early genes. In addition to playing an essential role in cell proliferation, HCF-1 also functions as a coactivator for the basic leucine zipper transcription factor LZIP (also designated Luman or CREB3). Both LZIP and VP16 contain the binding motif (D/E) HXY (S/A), which is recognized by an amino terminal beta-propeller domain in HCF-1. LZIP, a member of the ATF/CREB family, is a type II membrane-associated glycoprotein that is ubiquitously expressed in adult and fetal tissues. LZIP associates with the endoplasmic reticulum, where it sequesters most of the cellular HCF-1. Like other CREB/ATF family members, LZIP activates transcription from genes containing cyclic AMP response elements (CREs). LZIP activity is repressed by the inhibitory interaction of HCLP-1.

REFERENCES

1. Lu, R., Yang, P., O'Hare, P. and Misra, V. 1997. Luman, a new member of the CREB/ATF family, binds to herpes simplex virus VP16-associated host cellular factor. *Mol. Cell. Biol.* 17: 5117-5126.
2. Lu, R., Yang, P., Padmakumar, S. and Misra, V. 1998. The herpesvirus transactivator VP16 mimics a human basic domain leucine zipper protein, Luman, in its interaction with HCF. *J. Virol.* 72: 6291-6297.
3. Zhou, H.J., Wong, C.M., Chen, J.H., Qiang, B.Q., Yuan, J.G. and Jin, D.Y. 2001. Inhibition of LZIP-mediated transcription through direct interaction with a novel host cell factor-like protein. *J. Biol. Chem.* 276: 28933-28938.
4. Mahajan, S.S., Little, M.M., Vazquez, R. and Wilson, A.C. 2002. Interaction of HCF-1 with a cellular nuclear export factor. *J. Biol. Chem.* 277: 44292-44299.
5. Raggo, C., Rapin, N., Stirling, J., Gobeil, P., Smith-Windsor, E., et al. 2002. Luman, the cellular counterpart of herpes simplex virus VP16, is processed by regulated intramembrane proteolysis. *Mol. Cell. Biol.* 22: 5639-5649.

SOURCE

LZIP (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LZIP 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-25071 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-25071 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

LZIP (N-20) is recommended for detection of LZIP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Suitable for use as control antibody for LZIP siRNA (h): sc-37702, LZIP shRNA Plasmid (h): sc-37702-SH and LZIP shRNA (h) Lentiviral Particles: sc-37702-V.

LZIP (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

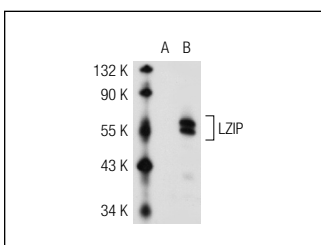
Molecular Weight of LZIP: 44 kDa.

Positive Controls: LZIP (m): 293T Lysate: sc-125570.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



LZIP (N-20): sc-25071. Western blot analysis of LZIP expression in non-transfected: sc-117752 (A) and mouse LZIP transfected: sc-125570 (B) 293T whole cell lysates.

PROTOCOLS

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

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Try **LZIP (Q-61): sc-100994**, our highly recommended monoclonal alternative to LZIP (N-20).