

LZIP (Q-61): sc-100994

BACKGROUND

HCF1 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, HCF1 also functions as a co-activator 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 β -propeller domain in HCF1. 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 HCF1. 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 HCF1 with a cellular nuclear export factor. *J. Biol. Chem.* 277: 44292-44299.
5. Raggio, C., Rapin, N., Stirling, J., Gobeil, P., Smith-Windsor, E., O'Hare, P. and Misra, V. 2002. Luman, the cellular counterpart of herpes simplex virus VP16, is processed by regulated intramembrane proteolysis. *Mol. Cell. Biol.* 22: 5639-5649.

CHROMOSOMAL LOCATION

Genetic locus: CREB3 (human) mapping to 9p13.3.

SOURCE

LZIP (Q-61) is a mouse monoclonal antibody raised against recombinant LZIP of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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 (Q-61) 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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

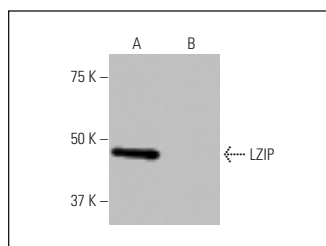
Molecular Weight of LZIP: 44 kDa.

Positive Controls: human LZIP transfected 293T whole cell lysate.

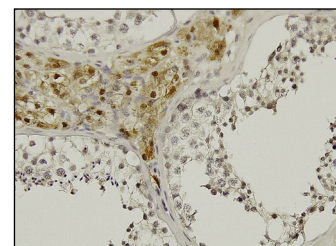
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



LZIP (Q-61): sc-100994. Western blot analysis of LZIP expression in human LZIP transfected (A) and non-transfected (B) 293T whole cell lysates.



LZIP (Q-61): sc-100994. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic localization.

PROTOCOLS

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