



Zhangfei (h): 293T Lysate: sc-369904

BACKGROUND

Host cell factor (HCF) is a cellular cofactor required for the activation of VP16 which expresses the herpes simplex virus immediate early gene. VP16 binds to HCF through a 4-amino acid motif similar to the HCF binding domain of the basic leucine-zipper proteins Luman and Zhangfei (ZF). Luman activates promoters containing cAMP or unfolded protein response elements (UPRE). Zhangfei suppresses the transcriptional activity of Luman, but requires HCF binding which may target Luman and Zhangfei to a common location. Sequence analysis predicts that the deduced 272-amino acid Zhangfei protein has a negatively charged N terminus, a leucine zipper of 6 heptad leucine repeats separated by a conserved 6-amino acid spacer, a basic domain, and a bZIP region. It is also presumed that the N-terminal acidic region of Zhangfei is an activation domain.

REFERENCES

1. Lu, R. and Misra, V. 2000. Zhangfei: a second cellular protein interacts with herpes simplex virus accessory factor HCF in a manner similar to Luman and VP16. *Nucleic Acids Res.* 28: 2446-2454.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606444. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Akhova, O., et al. 2005. The neuronal host cell factor-binding protein Zhangfei inhibits herpes simplex virus replication. *J. Virol.* 79: 14708-14718.
4. Cockram, G.P., et al. 2005. Identification and characterization of the DNA-binding properties of a Zhangfei homologue in Japanese pufferfish, *Takifugu rubripes*. *Biochem. Biophys. Res. Commun.* 339: 1238-1245.
5. Misra, V., et al. 2005. Zhangfei is a potent and specific inhibitor of the host cell factor-binding transcription factor Luman. *J. Biol. Chem.* 280: 15257-15266.
6. Hogan, M.R., et al. 2006. Cooperative interaction of Zhangfei and ATF4 in transactivation of the cyclic AMP response element. *FEBS Lett.* 580: 58-62.

CHROMOSOMAL LOCATION

Genetic locus: CREBZF (human) mapping to 11q14.1.

PRODUCT

Zhangfei (h): 293T Lysate represents a lysate of human Zhangfei transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Zhangfei (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Zhangfei antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.