

Zhangfei (C-15): sc-49328

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., et al. 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; Crebzf (mouse) mapping to 7 E1.

SOURCE

Zhangfei (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Zhangfei 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-49328 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.

APPLICATIONS

Zhangfei (C-15) is recommended for detection of HCF-binding transcription factor Zhangfei of mouse, rat and 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).

Zhangfei (C-15) is also recommended for detection of HCF-binding transcription factor Zhangfei in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Zhangfei siRNA (h): sc-61825, Zhangfei siRNA (m): sc-61826, Zhangfei shRNA Plasmid (h): sc-61825-SH, Zhangfei shRNA Plasmid (m): sc-61826-SH, Zhangfei shRNA (h) Lentiviral Particles: sc-61825-V and Zhangfei shRNA (m) Lentiviral Particles: sc-61826-V.

Zhangfei (C-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

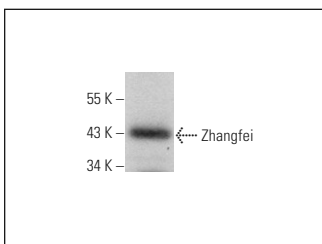
Molecular Weight of Zhangfei: 29 kDa.

Positive Controls: human brain tissue extract.

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



Zhangfei (C-15): sc-49328. Western blot analysis of Zhangfei expression in human brain tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.