

HCF1/2 (P-16): sc-13430

BACKGROUND

The herpes simplex virus (HSV) infection is initiated by VP16, a viral transcription factor that activates the viral immediate-early (IE) genes. VP16 recognizes the IE gene promoters by forming a multiprotein complex with Oct-1 and HCF1 (host cell factor 1), a nuclear protein required for progression through the G₁ phase of the cell cycle. This multiprotein complex, called C1, is responsible for transcription of the HSV immediate-early genes and may be critical for the regulation of the HSV lytic-latent cycle. A second HCF-like protein, designated HCF2 is smaller than HCF1 and is homologous with HCF1 in the β -propeller domain, which is required for association with VP16. HCF2 associates with VP16 and supports complex assembly with Oct-1 and DNA, although binds VP16 less efficiently than HCF1. This VP16 binding selectivity is dictated by differences in the kelch repeats of the β -propeller domains of HCF1 and HCF2.

REFERENCES

1. Johnson, K.M., Mahajan, S.S. and Wilson, A.C. 1999. Herpes simplex virus transactivator VP16 discriminates between HCF1 and a novel family member, HCF2. *J. Virol.* 73: 3930-3940.
2. 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.
3. Mahajan, S.S. and Wilson, A.C. 2000. Mutations in host cell factor 1 separate its role in cell proliferation from recruitment of VP16 and LZIP. *Mol. Cell. Biol.* 20: 919-928.
4. Scarr, R.B., Smith, M.R., Beddall, M. and Sharp, P.A. 2000. A novel 50 kDa fragment of host cell factor 1 (C1) in G₀ cells. *Mol. Cell. Biol.* 20: 3568-3575.
5. Vogel, J.L. and Kristie, T.M. 2000. The novel coactivator C1 (HCF) coordinates multiprotein enhancer formation and mediates transcription activation by GABP. *EMBO J.* 19: 683-690.

CHROMOSOMAL LOCATION

Genetic locus: HCFC1 (human) mapping to Xq28, HCFC2 (human) mapping to 12q23.3; Hcfc1 (mouse) mapping to X A7.3, Hcfc2 (mouse) mapping to 10 C1.

SOURCE

HCF1/2 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HCF1 of human origin.

PRODUCT

Each vial contains 200 μ g 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-13430 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-13430 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

HCF1/2 (P-16) is recommended for detection of HCF1 and HCF2 of mouse, rat and 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).

HCF1/2 (P-16) is also recommended for detection of HCF1 and HCF2 in additional species, including equine, canine, bovine, porcine and avian.

HCF1/2 (P-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of full-length HCF1 precursor: 230 kDa.

Molecular Weight of HCF1 polypeptide: 100 kDa.

Molecular Weight of HCF1 subunits: 123-135 kDa.

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.

PROTOCOLS

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


 MONOS
 Satisfaction
 Guaranteed

Try **HCF1 (H-8): sc-390950** or **HCF2 (C-6): sc-393250**, our highly recommended monoclonal alternatives to HCF1/2 (P-16).