

HCF1 (D-20): sc-13429

BACKGROUND

The herpes simplex virus 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 230 kDa 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. HCF1 is cleaved posttranslationally into separate, but associated, N- and C-terminal polypeptides. The cytoplasmic 50 kDa N-terminal fragment of HCF1 arises by proteolysis of full length HCF1 and associates with VP16. The C-terminal polypeptide of HCF1, distinct from the form of HCF1 that interacts with VP16, exists in a nuclear complex with protein phosphatase 1.

REFERENCES

1. Johnson, K.M., et al. 1999. Herpes simplex virus transactivator VP16 discriminates between HCF1 and a novel family member, HCF2. *J. Virol.* 73: 3930-3940.
2. 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.
3. Mahajan, S.S., et al. 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., et al. 2000. A novel 50 kDa fragment of host cell factor 1 (C1) in G(0) cells. *Mol. Cell. Biol.* 20: 3568-3575.
5. Vogel, J.L., et al. 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; Hcfc1 (mouse) mapping to X A7.3.

SOURCE

HCF1 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HCF1 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-13429 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-13429 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

HCF1 (D-20) is recommended for detection of HCF1 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); does not cross react with HCF1 short form.

HCF1 (D-20) is also recommended for detection of HCF1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HCF1 siRNA (h): sc-37996, HCF1 siRNA (m): sc-37997, HCF1 shRNA Plasmid (h): sc-37996-SH, HCF1 shRNA Plasmid (m): sc-37997-SH, HCF1 shRNA (h) Lentiviral Particles: sc-37996-V and HCF1 shRNA (m) Lentiviral Particles: sc-37997-V.

HCF1 (D-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

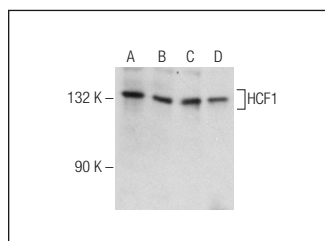
Molecular Weight of HCF1 full-length precursor: 230 kDa.

Molecular Weight of HCF1 polypeptide: 100 kDa.

Molecular Weight of HCF1 subunits: 123-135 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or Daudi cell lysate: sc-2415.

DATA



HCF1 (D-20): sc-13429. Western blot analysis of HCF1 expression in Jurkat (A), K-562 (B), Raji (C) and Daudi (D) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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

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Try **HCF1 (H-8): sc-390950**, our highly recommended monoclonal alternative to HCF1 (D-20).