SANTA CRUZ BIOTECHNOLOGY, INC.

HCF2 (D-12): sc-393251

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 G_1 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., et al. 1999. Herpes simplex virus transactivator VP16 discriminates between HCF-1 and a novel family member, HCF-2. 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., et al. 2000. A novel 50-kilodalton fragment of host cell factor 1 (C1) in G_0 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: HCFC2 (human) mapping to 12q23.3; Hcfc2 (mouse) mapping to 10 C1.

SOURCE

HCF2 (D-12) is a mouse monoclonal antibody raised against amino acids 555-792 mapping at the C-terminus of HCF2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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

HCF2 (D-12) is recommended for detection of HCF2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for HCF2 siRNA (h): sc-37998, HCF2 siRNA (m): sc-37999, HCF2 shRNA Plasmid (h): sc-37998-SH, HCF2 shRNA Plasmid (m): sc-37999-SH, HCF2 shRNA (h) Lentiviral Particles: sc-37998-V and HCF2 shRNA (m) Lentiviral Particles: sc-37999-V.

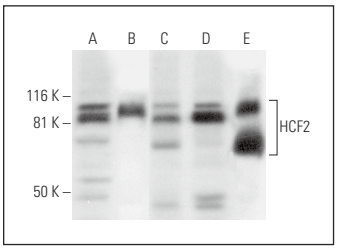
Molecular Weight of HCF2: 87 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, Hs 181 Tes whole cell lysate: sc-364779 or RT-4 whole cell lysate: sc-364257.

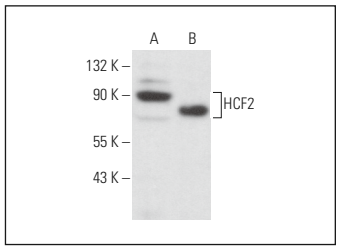
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HCF2 (D-12): sc-393251. Western blot analysis of HCF2 expression in Jurkat (**A**), Hs 181 Tes (**B**), RT-4 (**C**) and U-251-MG (**D**) whole cell lysates and human testis tissue extract (**E**).



HCF2 (D-12): sc-393251. Western blot analysis of HCF2 expression in NTERA-2 cl.D1 (**A**) and 3T3-L1 (**B**) whole cell lysates.

PROTOCOLS

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