SANTA CRUZ BIOTECHNOLOGY, INC.

HSV-1 ICP0 (11060): sc-53070

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The infected cell protein 0 (ICP0) is a general transactivator of all three classes of herpes simplex virus (HSV) genes. ICP0 functions synergistically with ICP4 and may control the balance between the latent and lytic states by reactivating latent HSV. A short sequence of ICP0 is similar to a sequence in the N-terminus of CoREST, a corepressor that exists in complexes with histone deacetylases (HDACs) 1 or 2 and the repressor REST. ICP0 is required to replicate HSV as well as enable gene expression and precludes the silencing of viral DNA by disrupting the human BHC corepressor complex though its interaction with human RCOR1/CoREST protein. ICP0 also interacts with and leads to the degradation of the human centromere protein CENP-A.

SOURCE

HSV-1 ICP0 (11060) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 20-105 of Vmw110 of HSV-1 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.

HSV-1 ICP0 (11060) is available conjugated to agarose (sc-53070 AC), 500µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53070 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53070 PE), fluorescein (sc-53070 FITC), Alexa Fluor® 488 (sc-53070 AF488), Alexa Fluor® 546 (sc-53070 AF546), Alexa Fluor® 594 (sc-53070 AF594) or Alexa Fluor® 647 (sc-53070 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53070 AF680) or Alexa Fluor® 790 (sc-53070 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HSV-1 ICP0 (11060) is recommended for detection of HSV-1 ICP0 of viral 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HSV-1 ICP0: 120 kDa.

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.

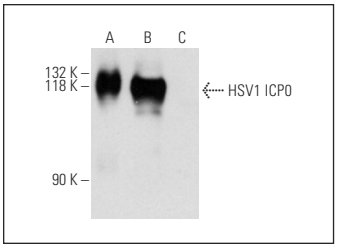
STORAGE

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.

DATA



HSV-1 ICP0 (11060): sc-53070. Western blot analysis of HSV-1 ICP0 expression in HSV-1 (MacIntyre strain) infected African Green monkey kidney (**A**), HSV-1 (17 syn + strain) infected baby hamster kidney (**B**) and mock infected control baby hamster kidney (**C**) tissue extracts.

SELECT PRODUCT CITATIONS

1. Ullman, A.J. and Hearing, P. 2008. Cellular proteins PML and Daxx mediate an innate antiviral defense antagonized by the adenovirus E4 ORF3 protein. J. Virol. 82: 7325-7335.
2. Mues, M.B., et al. 2015. Dynasore disrupts trafficking of herpes simplex virus proteins. J. Virol. 89: 6673-6684.
3. Heilingloh, C.S., et al. 2015. L particles transmit viral proteins from herpes simplex virus 1-infected mature dendritic cells to uninfected bystander cells, inducing CD83 downmodulation. J. Virol. 89: 11046-11055.
4. Gulve, N., et al. 2016. Anti-herpesviral effects of a novel broad range antimicrobial quaternary ammonium silane, K21. Antiviral Res. 131: 166-173.
5. Marino-Merlo, F., et al. 2016. HSV-1-induced activation of NFκB protects U937 monocytic cells against both virus replication and apoptosis. Cell Death Dis. 7: e2354.
6. Lou, D.I., et al. 2016. An intrinsically disordered region of the DNA repair protein Nbs1 is a species-specific barrier to herpes simplex virus 1 in primates. Cell Host Microbe 20: 178-188.
7. Hutterer, C., et al. 2017. Inhibitors of dual-specificity tyrosine phosphorylation-regulated kinases (DYRK) exert a strong anti-herpesviral activity. Antiviral Res. 143: 113-121.
8. Pan, S., et al. 2018. The herpes simplex virus 1 $\gamma_1$34.5 protein inhibits STING activation that restricts viral replication. J. Virol. 92 pii: e01015-e01018.
9. Zinser, E., et al. 2018. A new promising candidate to overcome drug resistant herpes simplex virus infections. Antiviral Res. 149: 202-210.

PROTOCOLS

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