SANTA CRUZ BIOTECHNOLOGY, INC.

HSV-1 ICP8 (10A3): sc-53329

BACKGROUND

The herpes simplex virus (HSV) (also known as cold sore, night fever, or fever blister) is a virus that causes a contagious disease. The HSV1 strain generally appears in the orafacial organs. All herpes viruses are morphologically identical: they have a large double stranded DNA genome, and the virion consists of an icosahedral nucleocapsid which is surrounded by a lipid bilayer envelope. Following primary infection, the virus establishes a latent infection in the host and may reactivate at any stage. Reactivation is frequently, but not always, associated with further disease. ICP8, the HSV1 encoded single-strand DNA (ssDNA)-binding protein, is the major DNA binding protein of HSV1. ICP8 promotes single-stranded DNA to assemble into a homologous duplex plasmid producing a displacement loop. At higher concentrations, however, ICP8 facilitates the reverse reaction due to its helix destabilizing activity.

SOURCE

HSV-1 ICP8 (10A3) is a mouse monoclonal antibody raised against ICP8 purified from U-35-VERO cells.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HSV-1 ICP8 (10A3) is available conjugated to agarose (sc-53329 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53329 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53329 PE), fluorescein (sc-53329 FITC), Alexa Fluor® 488 (sc-53329 AF488), Alexa Fluor® 546 (sc-53329 AF546), Alexa Fluor® 594 (sc-53329 AF594) or Alexa Fluor® 647 (sc-53329 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53329 AF680) or Alexa Fluor® 790 (sc-53329 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HSV-1 ICP8 (10A3) is recommended for detection of HSV-1 ICP8 of Herpes simplex virus 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 ICP8: 150 kDa.

Positive Controls: HSV1 strain 17 syn + infected baby hamster kidney tissue extract.

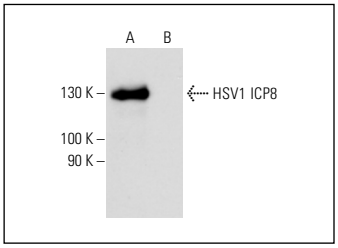
RECOMMENDED SUPPORT REAGENTS

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.

DATA



HSV1 ICP8 (10A3): sc-53329. Western blot analysis of HSV1 ICP8 expression in HSV1 strain 17 syn + infected (**A**) and mock infected (**B**) baby hamster kidney tissue extracts.

SELECT PRODUCT CITATIONS

1. Sagou, K., et al. 2010. Nucleolin is required for efficient nuclear egress of herpes simplex virus type 1 nucleocapsids. J. Virol. 84: 2110-2121.
2. Lin, A.E., et al. 2013. A proteomic perspective of inbuilt viral protein regulation: pUL46 tegument protein is targeted for degradation by ICP0 during herpes simplex virus type 1 infection. Mol. Cell. Proteomics 12: 3237-3252.
3. Jamin, A., et al. 2014. Barrier to auto integration factor becomes dephosphorylated during HSV-1 infection and can act as a host defense by impairing viral DNA replication and gene expression. PLoS ONE 9: e100511.
4. Diner, B.A., et al. 2015. Interactions of the antiviral factor interferon γ-inducible protein 16 (IFI16) mediate immune signaling and herpes simplex virus-1 immunosuppression. Mol. Cell. Proteomics 14: 2341-2356.
5. Kato, A., et al. 2016. Roles of Us8A and its phosphorylation mediated by Us3 in herpes simplex virus 1 pathogenesis. J. Virol. 90: 5622-5635.
6. Martin, C., et al. 2017. Herpes simplex virus type 1 neuronal infection perturbs Golgi apparatus integrity through activation of Src tyrosine kinase and Dyn-2 GTPase. Front. Cell. Infect. Microbiol. 7: 371.
7. Meng, W., et al. 2018. Multifunctional viral protein γ34.5 manipulates nucleolar protein NOP53 for optimal viral replication of HSV-1. Cell Death Dis. 9: 103.
8. Acuña-Hinrichsen, F., et al. 2019. Herpes simplex virus type 1 enhances expression of the synaptic protein Arc for its own benefit. Front. Cell. Neurosci. 12: 505.
9. Grosche, L., et al. 2020. Herpes simplex virus type-2 paralyzes the function of monocyte-derived dendritic cells. Viruses 12: 112.

RESEARCH USE

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