

HSV-2 ICP8 Major DNA binding protein (4E6): sc-56992

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 HSV-1 strain generally appears in the orofacial 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 (infected cell protein 8), the HSV-2 encoded single-strand DNA (ssDNA)-binding protein, is the major DNA-binding protein of HSV-2. 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.

REFERENCES

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3. Gourves, A.S., Tanguy Le Gac, N., Villani, G., Boehmer, P.E. and Johnson, N.P. 2000. Equilibrium binding of single-stranded DNA with herpes simplex virus type-1-coded single-stranded DNA-binding protein, ICP8. *J. Biol. Chem.* 275: 10864-10869.
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5. Nimonkar, A.V. and Boehmer, P.E. 2003. The herpes simplex virus type-1 single-strand DNA-binding protein (ICP8) promotes strand invasion. *J. Biol. Chem.* 278: 9678-9682.
6. Nimonkar, A.V. and Boehmer, P.E. 2003. On the mechanism of strand assimilation by the herpes simplex virus type-1 single-strand DNA-binding protein (ICP8). *Nucleic Acids Res.* 31: 5275-5281.
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8. Makhov, A.M. and Griffith, J.D. 2006. Visualization of the annealing of complementary single-stranded DNA catalyzed by the herpes simplex virus type-1 ICP8 SSB/recombinase. *J. Mol. Biol.* 355: 911-922.

SOURCE

HSV-2 ICP8 Major DNA binding protein (4E6) is a mouse monoclonal antibody raised against herpesvirus 2.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HSV-2 ICP8 Major DNA binding protein (4E6) is recommended for detection of ICP8 Major DNA binding protein of herpes simplex virus 2 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HSV-2 ICP8 Major DNA binding protein: 150 kDa.

SELECT PRODUCT CITATIONS

1. Crisci, E., Ellegard, R., Nystrom, S., Rondahl, E., Serrander, L., Bergstrom, T., Sjöwall, C., Eriksson, K. and Larsson, M. 2016. Complement opsonization promotes HSV-2 infection of human dendritic cells. *J. Virol.* 90: 4939-4950.

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 for detailed protocols and support products.