SANTA CRUZ BIOTECHNOLOGY, INC.

HSV-1/2 ICP5 Major Capsid Protein (3B6): sc-56989

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BACKGROUND

Two serotypes of the herpes simplex virus, HSV-1 (also known as type 1 or oral) and HSV-2 (type 2 or genital), can establish lifelong latent infections within sensory ganglia. HSV-1 usually establishes latency in the trigeminal ganglion, a collection of nerve cells near the ear. From there, it tends to recur on the lower lip or face. HSV-2 usually resides in the sacral ganglion at the base of the spine. From there, it reiterates in the genital area. HSV-1/2 ICP5 Major Capsid Protein (infected cell polypeptide 5 major capsid protein), also known as VP5, is involved in the formation and assembly of sealed viral capsids. The HSV-1/2 ICP5 Major Capsid Protein composes both pentavalent and hexavalent capsomeres, hexons and pentons. Rearrangements of the subunits required to form both types of capsomeres result in structures with disparate electrostatic properties, which may facilitate the binding and release of other structural proteins during capsid maturation.

REFERENCES

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2. Ashley, R.L., et al. 1994. Protein-specific cervical antibody responses to primary genital herpes simplex virus type 2 infections. J. Infect. Dis. 170: 20-26.
3. Thomsen, D.R., et al. 1995. Assembly of the herpes simplex virus capsid: requirement for the carboxyl-terminal twenty-five amino acids of the proteins encoded by the UL26 and UL26.5 genes. J. Virol. 69: 3690-3703.
4. Pelletier, A., et al. 1997. Self-association of herpes simplex virus type 1 ICP35 is via coiled-coil interactions and promotes stable interaction with the major capsid protein. J. Virol. 71: 5197-5208.
5. Person, S. and Desai, P. 1998. Capsids are formed in a mutant virus blocked at the maturation site of the UL26 and UL26.5 open reading frames of herpes simplex virus type 1 but are not formed in a null mutant of UL38 (VP19C). Virology 242: 193-203.
6. Newcomb, W.W., et al. 1999. Assembly of the herpes simplex virus procapsid from purified components and identification of small complexes containing the major capsid and scaffolding proteins. J. Virol. 73: 4239-4250.
7. Goshima, F., et al. 2000. Herpes simplex virus UL17 protein is associated with B capsids and co-localizes with ICP35 and VP5 in infected cells. Arch. Virol. 145: 417-426.

SOURCE

HSV-1/2 ICP5 Major Capsid Protein (3B6) is a mouse monoclonal antibody raised against herpes virus.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

HSV-1/2 ICP5 Major Capsid Protein (3B6) is recommended for detection of ICP5 of Herpes Simplex Virus 1 and 2 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-1/2 ICP5 Major Capsid Protein: 155 kDa.

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.
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3. Cheshenko, N., et al. 2014. Herpes simplex virus type 2 glycoprotein H interacts with integrin $\alpha_v\beta_3$ to facilitate viral entry and calcium signaling in human genital tract epithelial cells. J. Virol. 88: 10026-10038.
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6. Petro, C., et al. 2015. Herpes simplex type 2 virus deleted in glycoprotein D protects against vaginal, skin and neural disease. Elife 4: e06054.
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8. 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.
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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.