SANTA CRUZ BIOTECHNOLOGY, INC.

# HSV-2 gE Envelope Protein (101): sc-52861

## 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. When no symptoms are present, HSV lies dormant in the bodies of the nerve cells. During an outbreak, though, it replicates within axons near the skin. Once the outbreak subsides, the virus then retreats along the nerve until it remains only in the nerve body. Dormancy of the virus within the nerve bodies contributes to its difficulty of treatment. There is currently no known cure or vaccine for HSV. The envelope of HSV consists of glycoproteins derived from the viral genome. The envelope is derived from portions of host cell membranes. Envelope proteins are embedded into the membranous viral envelope to allow host cell recogntion through the identification and binding of host cell receptor sites. Glycoprotein E (HSV-2 gE Envelope Protein) may contribute to viral entry.

## REFERENCES


1. Sindhi, R. 2006. HSV infection and immunosuppression. Liver Transpl. 12: 1906-1907.
2. Chu, K., et al. 2006. Association between HSV-2 and HIV-1 viral load in semen, cervico-vaginal secretions and genital ulcers of Thai men and women. Int. J. STD AIDS 17: 681-686.
3. Golembewski, E.K., et al. 2006.The HSV-2 protein ICP10PK prevents neuronal apoptosis and loss of function in an *in vivo* model of neurodegeneration associated with glutamate excitotoxicity. Exp. Neurol. 203: 381-393.
4. Iqbal, J., et al. 2006. Development and validation of a capillary electrophoresis method for the characterization of herpes simplex virus type 1 (HSV-1) thymidine kinase substrates and inhibitors. J. Chromatogr. B Analyt. Technol. Biomed. Life Sci. 846: 281-290.
5. Lowhagen, G.B., et al. 2006. The microenvironment of vulvar skin in women with symptomatic and asymptomatic herpes simplex virus type 2 (HSV-2) infection. J. Eur. Acad. Dermatol. Venereol. 20: 1086-1089.
6. Margolis, T.P., et al. 2007. HSV-2 establishes latent infection in a different population of ganglionic neurons than HSV-1: role of LAT. J. Virol. 81: 1872-1878.
7. Haddow, L.J., et al. 2007. Herpes simplex virus type 2 (HSV-2) infection in women attending an antenatal clinic in the South Pacific island nation of Vanuatu. Sex Transm Dis. 34: 258-261.
8. Robe, P.A., et al. 2007. Sufasalazine unveils a contact-independent HSV-TK/ganciclovir gene therapy bystander effect in malignant gliomas. Int. J. Oncol. 30: 283-290.
9. Legoff, J., et al. 2007. HSV-2- and HIV-1- permissive cell lines co-infected by HSV-2 and HIV-1 co-replicate HSV-2 and HIV-1 without production of HSV-2/HIV-1 pseudotype particles. Virol. J. 4: 2.


## RESEARCH USE

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

## SOURCE

HSV-2 gE Envelope Protein (101) is a mouse monoclonal antibody raised against infected cell lysate.

## PRODUCT

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

## APPLICATIONS

HSV-2 gE Envelope Protein (101) is recommended for detection of HSV-2 gE Envelope Protein of herpes simplex virus 2 origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) 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.

## SELECT PRODUCT CITATIONS


1. Petro, C., et al. 2015. Herpes simplex type 2 virus deleted in glycoprotein D protects against vaginal, skin and neural disease. Elife. E-published.


## 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.