SANTA CRUZ BIOTECHNOLOGY, INC.

HSV-2 gE (E10b): sc-550892

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

HSV-2 gE Antibody (E10b) is a high quality monoclonal HSV-2 gE antibody suitable for the detection of the HSV-2 gE protein of HSV-2 origin. Membrane fusion is essential for the entry, spread and formation of enveloped viruses, such as herpes simplex virus, and is mediated by envelope glycoproteins. Two serotypes of the herpes simplex virus, HSV-1 (also known as type 1 or oral) and HSV-2 (type 2 or genital), have been shown to encode at least twelve glycoproteins. Some of these exist as heterodimers, such as gH/gL and gE/gI. The heterodimer gE/gI aids in cell-to-cell spread of the virus, by sorting virions to cell junctions. After the viruses are introduced to the cell junctions, viruses can rapidly spread to close proximity cells by interacting with cellular receptors which build up at these junctions. In neuronal cells, gE/gI is crucial for the spread of the infection in the host nervous system. Together with US9, gE/gI is involved in the categorizing and transfer of viral structural components toward axon tips.

REFERENCES

1. McGeoch, D.J., Moss, H.W., McNab, D. and Frame, M.C. 1987. DNA sequence and genetic content of the HindIII I region in the short unique component of the herpes simplex virus type 2 genome: identification of the gene encoding glycoprotein G, and evolutionary comparisons. J. Gen. Virol. 68: 19-38.
2. Dolan, A., Jamieson, F.E., Cunningham, C., Barnett, B.C. and McGeoch, D.J. 1998. The genome sequence of herpes simplex virus type 2. J. Virol. 72: 2010-2021.
3. Madavaraju, K., Koganti, R., Volety, I., Yadavalli, T. and Shukla, D. 2021. Herpes simplex virus cell entry mechanisms: an update. Front. Cell. Infect. Microbiol. 10: 617578.

SOURCE

HSV-2 gE (E10b) is a mouse monoclonal antibody raised against amino acids 24-405 of HSV-2 gE.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HSV-2 gE (E10b) is available conjugated to agarose (sc-550892 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-550892 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-550892 PE), fluorescein (sc-550892 FITC), Alexa Fluor® 488 (sc-550892 AF488), Alexa Fluor® 546 (sc-550892 AF546), Alexa Fluor® 594 (sc-550892 AF594) or Alexa Fluor® 647 (sc-550892 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-550892 AF680) or Alexa Fluor® 790 (sc-550892 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

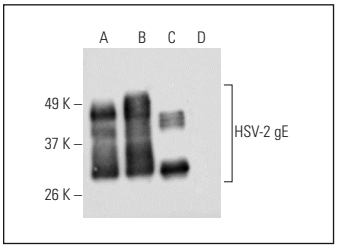
HSV-2 gE (E10b) is recommended for detection of HSV-2 gE of HSV-2 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of HSV-2 gE: 42-43 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.

DATA



HSV-2 gE (E10b): sc-550892. Western blot analysis of HSV-2 gE in mammalian-derived gE2 proteins (**A** and **B**) and baculovirus-derived gE2 protein (**C**). Note lack of reactivity with mammalian-derived gD2 protein in lane **D**. Data kindly provided by Lauren Hook, Tina Cairns, Gary Cohen, and Harvey Friedman at University of Pennsylvania (Philadelphia, PA).

RESEARCH USE

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

PROTOCOLS

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