SANTA CRUZ BIOTECHNOLOGY, INC.

# HSV-2 gD (vI-20): sc-17538

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*The Power to Question*

## BACKGROUND

Two serotypes of the herpes simplex virus, type-1 HSV-1 (oral) and type-2 HSV-2 (genital), can establish lifelong latent infections within sensory ganglia. Periodically, the virus reactivates and can cause recurrent cold sores, eye and genital infections, and encephalitis. The human herpesvirus entry mediator C (HveC), also known as the poliovirus receptor-related protein 1 (PRR1) and as nectin-1, allows the entry of HSV-1 and HSV-2 into mammalian cells. HveC contains three Ig-like domains in its extracellular portion. The Glycoprotein D (gD) binding site is located within the first Ig-like domain (V domain) of HveC. The interaction of virus envelope gD with HveC is an essential step in the process leading to membrane penetration, fusion and cell-cell spread. The fusion event is dependent on the expression of a gD receptor on target cell membranes and does not require the presence of cell-surface glycosaminoglycans. Utilizing more than one cell receptor for entry, gD is also essential for receptor-mediated entry of $\alpha$ herpes viruses and bovine herpes virus type 1 (BHV-1).

## REFERENCES


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2. Krummenacher, C., Baribaud, I., Ponce de Leon, M., Whitbeck, J.C., Lou, H., Cohen, G.H. and Eisenberg, R.J. 2000. Localization of a binding site for herpes simplex virus Glycoprotein D on herpesvirus entry mediator C by using antireceptor monoclonal antibodies. J. Virol. 23: 10863-10872.
3. Rauch, D.A., Rodriguez, N. and Roller, R.J. 2000. Mutations in herpes simplex virus Glycoprotein D distinguish entry of free virus from cell-cell spread. J. Virol. 24: 11437-11446.
4. Browne, H., Bruun, B. and Minson, T. 2001. Plasma membrane requirements for cell fusion induced by herpes simplex virus type 1 Glycoproteins gB, gD, gH and gL. J. Gen. Virol. 6: 1419-1422.
5. Connolly, S.A., Whitbeck, J.J., Rux, A.H., Krummenacher, C., van Drunen Littel-van den Hurk, S., Cohen, G.H. and Eisenberg, R.J. 2001. Glycoprotein D homologs in herpes simplex virus type 1, pseudorabies virus, and bovine herpes virus type 1 bind directly to human HveC (nectin-1) with different affinities. Virology 1: 7-18.


## SOURCE

HSV-2 gD (vI-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HSV-2 gD.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17538 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

HSV-2 gD (vI-20) is recommended for detection of gD of HSV-2 origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of HSV-2 gD: 57 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

## 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 or our catalog for detailed protocols and support products.