SANTA CRUZ BIOTECHNOLOGY, INC.

# VZV gI (8C4): sc-56997

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Varicella Zoster Virus, known as VZV, is associated with two distinct diseases: childhood chickenpox (Varicella) and shingles (Zoster). VZV becomes dormant in sensory ganglia and may reactivate decades later to produce Zoster (shingles) or herpes Zoster. VZV is enveloped in the *trans*-Golgi network (TGN). Glycoprotein I (gI) is required within the TGN for VZV envelopment, and for efficient membrane fusion during VZV replication. The C-terminal domain of gI is required to segregate viral and cellular proteins in enveloping TGN cisternae. The amino-terminus of mature gI is required for glycoprotein E (gE)-gI complex formation by the external domains of VZV gE and gI. gE is a major component of the virion envelope and can be found complexed with glycoprotein I on the infected host cell surface. gE expression is activated by IE4 and IE62. VZV gI is required for replication of the virus in Vero cells, for efficient replication of the virus in nonhuman cells and for normal processing of gE.

## REFERENCES


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3. Mallory, S., Sommer, M. and Arvin, A.M. 1997. Mutational analysis of the role of glycoprotein I in Varicella Zoster Virus replication and its effects on glycoprotein E conformation and trafficking. J. Virol. 71: 8279-8288.
4. Rahaus, M. and Wolff, M.H. 2000. Transcription factor Sp1 is involved in the regulation of Varicella Zoster Virus glycoprotein E. Virus Res. 1: 69-81.
5. Kleinschmidt-DeMasters, B.K. and Gilden, D.H. 2001. Varicella Zoster Virus infections of the nervous system: clinical and pathologic correlates. Arch. Pathol. Lab. Med. 6: 770-780.
6. Wang, Z.H., Gershon, M.D., Lungu, O., Zhu, Z., Mallory, S., Arvin, A.M. and Gershon, A.A. 2001. Essential role played by the C-terminal domain of glycoprotein I in envelopment of Varicella Zoster Virus in the *trans*-Golgi network: interactions of glycoproteins with tegument. J. Virol. 75: 323-340.


## SOURCE

VZV gI (8C4) is a mouse monoclonal antibody raised against VZV infected cell extract.

## PRODUCT

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

## 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.

## APPLICATIONS

VZV gI (8C4) is recommended for detection of glycoprotein I of Varicella Zoster Virus 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 VZV gI: 67 kDa.

## PROTOCOLS

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