SANTA CRUZ BIOTECHNOLOGY, INC.

VZV gB (10G6): sc-56993

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 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. VZV glycoprotein B (gB) contains three consensus internalization motifs within its cytoplasmic domain. The internalization of VZV gB, and its subsequent localization to the Golgi, is mediated by two tyrosine-based sequence motifs in its cytoplasmic domain.

REFERENCES

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2. Cohen, J.I. and Nguyen, H. 1997. Varicella Zoster Virus glycoprotein I is essential for growth of virus in Vero cells. J. Virol. 71: 6913-6920.
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.
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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.
7. Heineman, T.C. and Hall, S.L. 2001. VZV gB endocytosis and Golgi localization are mediated by YXXϕ motifs in its cytoplasmic domain. Virology 285: 42-49.

SOURCE

VZV gB (10G6) 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.

APPLICATIONS

VZV gB (10G6) is recommended for detection of VZV glycoprotein B by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.