

Varicella Zoster Virus IE62 (0361): sc-58211

BACKGROUND

Varicella Zoster Virus, known as VZV, is associated with two distinct diseases: childhood chickenpox (varicella) and shingles (zoster). Varicella Zoster Virus becomes dormant in sensory ganglia and may reactivate decades later to produce zoster (shingles) or herpes zoster. Varicella Zoster Virus is enveloped in the *trans*-Golgi network (TGN). Glycoprotein I (gI) is required within the TGN for Varicella Zoster Virus envelopment, and for efficient membrane fusion during Varicella Zoster Virus replication. The C-terminal domain of gI is required to segregate viral and cellular proteins in enveloping TGN cisternae. The N-terminus of mature gI is required for glycoprotein E (gE)-gI complex formation by the external domains of Varicella Zoster Virus 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. Varicella Zoster Virus 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

1. Kimura, H., et al. 1997. Varicella Zoster Virus glycoproteins E and I expressed in insect cells form a heterodimer that requires the N-terminal domain of glycoprotein I. *Virology* 233: 382-391.
2. Cohen, J.I., et al. 1997. Varicella Zoster Virus glycoprotein I is essential for growth of virus in Vero cells. *J. Virol.* 71: 6913-6920.
3. Mallory, S., et al. 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., et al. 2000. Transcription factor Sp1 is involved in the regulation of Varicella Zoster Virus glycoprotein E. *Virus Res.* 69: 69-81.
5. Kleinschmidt-DeMasters, B.K., et al. 2001. Varicella Zoster Virus infections of the nervous system: clinical and pathologic correlates. *Arch. Pathol. Lab. Med.* 125: 770-780.
6. Wang, Z.H., et al. 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

Varicella Zoster Virus IE62 (0361) is a mouse monoclonal antibody raised against Varicella Zoster Virus.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Varicella Zoster Virus IE62 (0361) is recommended for detection of Varicella Zoster Virus Immediate Early protein encoded by Varicella Zoster Virus gene 62 (IE62) by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Varicella Zoster Virus IE62: 180 kDa.

STORAGE

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

SELECT PRODUCT CITATIONS

1. Abreu Velez, A.M., et al. 2012. Varicella Zoster Virus (VZV) and α 1 antitrypsin: a fatal outcome in a patient affected by endemic pemphigus foliaceus. *Int. J. Dermatol.* 51: 809-816.
2. Lee, K.S., et al. 2012. Human sensory neurons derived from induced pluripotent stem cells support Varicella Zoster Virus infection. *PLoS ONE* 7: e53010.
3. Kurapati, S., et al. 2017. Role of the JNK pathway in Varicella Zoster Virus lytic infection and reactivation. *J. Virol.* 91: e00640-17.

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.