

# Vaccinia Virus (8116): sc-69949

## BACKGROUND

Vaccinia Virus belongs to the poxvirus family of viruses. It contains double-stranded DNA and was used as a vaccine to eradicate the smallpox disease. Fusion protein plays an important role in the entry of intracellular enveloped virus (IEV) into cells. In Vaccinia Virus, the fusion process is attributed to the action of a protein, which is encoded by the Vaccinia Virus A27L gene. This protein plays an important role in the biology of the virus, acting in virus-to-cell and cell-to-cell fusions. The protein is required for the microtubule-dependent transport of intracellular mature virus particles and for the process of envelopment that leads to IEV formation. The N-terminus of this protein recognizes heparan sulfate on the cell surface and interacts with the negative charges of sulfates of glycosaminoglycans (GAGs). Therefore, antibodies that recognize this protein are able to neutralize Vaccinia Virus infection and to identify other viral and cellular proteins, which participate in the Vaccinia Virus entry process.

## REFERENCES

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- Moerdyk, M.J., Byrd, C.M. and Hruby, D.E. 2006. Analysis of Vaccinia Virus temperature-sensitive I7L mutants reveals two potential functional domains. *Virol. J.* 3: 64.

## SOURCE

Vaccinia Virus (8116) is a mouse monoclonal antibody raised against Vaccinia Virus.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2b</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Vaccinia Virus (8116) is recommended for detection of free Vaccinia Virus and infected cells of Vaccinia Virus origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of Vaccinia Virus: 14 kDa.

## SELECT PRODUCT CITATIONS

- Li, Z., Ling, L., Liu, X., Laus, R. and Delcayre, A. 2010. A flow cytometry-based immuno-titration assay for rapid and accurate titer determination of modified vaccinia Ankara virus vectors. *J. Virol. Methods* 169: 87-94.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.