



VZV Immediate Early Protein (8B11): sc-56998

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). VZV Immediate Early Protein (also known as IE62, ORF 62 or IE175) is a major transactivator that may play a significant role in viral pathogenesis by promoting neuron survival during primary and reactivated infections. VZV Immediate Early Protein localizes to the nucleus of transfected and VZV-infected cells where its functions may be specifically regulated by the VZV ORF 66 protein. Cellular transcription factor Sp1 interacts with VZV Immediate Early Protein, and Sp1 is involved in recruitment of VZV Immediate Early Protein to the gl promoter. VZV Immediate Early Protein enhances Sp1 and cellular factor TBP binding.

REFERENCES

1. Kinchington, P.R. and Turse, S.E. 1998. Regulated nuclear localization of the Varicella Zoster Virus major regulatory protein, IE62. *J. Infect. Dis.* 178 Suppl 1: 16-21.
2. Lynch, J.M., Kenyon, T.K., Grose, C., Hay, J. and Ruyechan, W.T. 2002. Physical and functional interaction between the Varicella Zoster Virus IE63 and IE62 proteins. *Virology* 302: 71-82.
3. Frey, C.R., Sharp, M.A., Min, A.S., Schmid, D.S., Loparev, V. and Arvin, A.M. 2003. Identification of CD8⁺ T cell epitopes in the immediate early 62 protein (IE62) of Varicella Zoster Virus, and evaluation of frequency of CD8⁺ T cell response to IE62, by use of IE62 peptides after Varicella vaccination. *J. Infect. Dis.* 188: 40-52.
4. Peng, H., He, H., Hay, J. and Ruyechan, W.T. 2003. Interaction between the Varicella Zoster Virus IE62 major transactivator and cellular transcription factor Sp1. *J. Biol. Chem.* 278: 38068-38075.
5. Rahaus, M., Desloges, N., Yang, M., Ruyechan, W.T. and Wolff, M.H. 2003. Transcription factor USF, expressed during the entire phase of Varicella Zoster Virus infection, interacts physically with the major viral transactivator IE62 and plays a significant role in virus replication. *J. Gen. Virol.* 84: 2957-2967.
6. Desloges, N., Rahaus, M. and Wolff, M.H. 2005. The Varicella Zoster Virus-mediated delayed host shutdown: open reading frame 17 has no major function, whereas immediate-early 63 protein represses heterologous gene expression. *Microbes Infect.* 7: 1519-1529.
7. Garry, E.M., Delaney, A., Anderson, H.A., Sirinathsinghji, E.C., Clapp, R.H., Martin, W.J., Kinchington, P.R., Krah, D.L., Abbadie, C. and Fleetwood-Walker, S.M. 2005. Varicella Zoster Virus induces neuropathic changes in rat dorsal root ganglia and behavioral reflex sensitisation that is attenuated by gabapentin or sodium channel blocking drugs. *Pain* 118: 97-111.

SOURCE

VZV Immediate Early Protein (8B11) is a mouse monoclonal antibody raised against VZV infected cell extract.

PRODUCT

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

APPLICATIONS

VZV Immediate Early Protein (8B11) is recommended for detection of VZV Immediate Early Protein by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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 for detailed protocols and support products.