SANTA CRUZ BIOTECHNOLOGY, INC.

St. Louis encephalitis (6B5A-2): sc-58035



BACKGROUND

St. Louis encephalitis (SLE) is the most common viral encephalitis in the USA. Since the majority of people infected never actually display any symptoms, those who do exhibit flu-like symptoms confront a very serious life threat. Serious infecetions may cause high fever, headache, coma, neck stiffness, occasional convulsions, stupor, disorientation, tremors, and spastic paralysis, while the most severe infections result in seizures, paralysis, double-vision, and death. Elderly people are much more likely to have fatal infections, with fatality ranging from 3-30%. Although mosquitoes transfer SLE from birds to humans, humans cannot further transmit the virus to other humans. The elderly and the young are most at risk from SLE. Like all viruses, antibiotic treatments are not effective, and a vaccine does not exist. There is no cure for St. Louis encephalitis.

REFERENCES

- 1. Bischof, R. and Rogers, D.G. 2005. Serologic survey of select infectious diseases in coyotes and raccoons in Nebraska. J. Wildl. Dis. 41: 787-791.
- 2. Day, J.F. 2005. Host-seeking strategies of mosquito disease vectors. J. Am. Mosq. Control Assoc. 21: 17-22.
- 3. Gibbs, S.E., Allison, A.B., Yabsley, M.J., Mead, D.G., Wilcox, B.R. and Stallknecht, D.E. 2006. West Nile virus antibodies in avian species of Georgia, USA: 2000-2004. Vector Borne Zoonotic Dis. 6: 57-72.
- 4. Reisen, W.K., Martinez, V.M., Fang, Y., Garcia, S., Ashtari, S., Wheeler, S.S. and Carroll, B.D. 2006. Role of California (Callipepla californica) and Gambel's (Callipepla gambelii) quail in the ecology of mosquito-borne encephalitis viruses in California, USA. Vector Borne Zoonotic Dis. 6: 248-260.
- 5. Fang, Y. and Reisen, WK. 2006. Previous infection with West Nile or St. Louis encephalitis viruses provides cross protection during reinfection in house finches. Am. J. Trop. Med. Hyg. 75: 480-485.
- 6. Hukkanen, R.R., Liggitt, H.D., Kelley, S.T., Grant, R., Anderson, D.M., Hall, R.A., Tesh, R.B., Travassos DaRosa, A.P. and Bielefeldt-Ohmann, H. 2006. West Nile and St. Louis encephalitis virus antibody seroconversion, prevalence, and persistence in naturally infected pig-tailed macaques (Macaca nemestrina). Clin. Vaccine Immunol. 13: 711-714.
- 7. Santos, C.L., Sallum, M.A., Franco, H.M., Oshiro, F.M. and Rocco, I.M. 2006. Genetic characterization of St. Louis encephalitis virus isolated from human in Sao Paulo, Brazil, Mem. Inst. Oswaldo Cruz 101: 57-63.
- 8. Reisen, W.K., Fang, Y. and Martinez, VM. 2006. Effects of temperature on the transmission of West Nile virus by Culex tarsalis (Diptera: Culicidae). J. Med. Entomol. 43: 309-317.
- 9. Chien, L.J., Liao, T.L., Shu, P.Y., Huang, J.H., Gubler, D.J. and Chang, G.J. 2006. Development of real-time reverse transcriptase PCR assays to detect and serotype dengue viruses. J. Clin. Microbiol. 44: 1295-1304.

STORAGE

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

SOURCE

St. Louis encephalitis (6B5A-2) is a mouse monoclonal antibody raised against purified St. Louis encephalitis virus, strain MSI-7.

Hybridoma cell line, St. Louis Encephalitis virus SLE 6b5a-2, provided to SCBT by the Centers for Disease Control and Prevention under a Biological Materials License Agreement.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

St. Louis encephalitis (6B5A-2) is available conjugated to agarose (sc-58035 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58035 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58035 PE), fluorescein (sc-58035 FITC), Alexa Fluor® 488 (sc-58035 AF488), Alexa Fluor[®] 546 (sc-58035 AF546), Alexa Fluor[®] 594 (sc-58035 AF594) or Alexa Fluor[®] 647 (sc-58035 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-58035 AF680) or Alexa Fluor[®] 790 (sc-58035 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

St. Louis encephalitis (6B5A-2) is recommended for detection of the envelope glycoprotein of St. Louis encephalitis, strain MSI-7 by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

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.