

Poliovirus Type 1 (14D2): sc-80501

BACKGROUND

Polio (poliomyelitis), also referred to as infantile paralysis, is an infectious disease caused by a virus that is transmitted via the fecal-oral route. It may proceed to the blood stream and into the central nervous system causing muscle weakness and sometimes paralysis. The polio virus is a small RNA picorna-enterovirus that primarily infects the gastrointestinal associated lymphoid tissue (GALT). Mortality because of the polio virus, though very rare, is usually due to respiratory failure by paralysis of the intercostal muscles and diaphragm. Three separate types of this virus exist: Type 1, Type 2 and Type 3.

REFERENCES

1. Almond, J.W., Stone, D., Burke, K., Skinner, M.A., Macadam, A.J., Wood, D., Ferguson, M. and Minor, P.D. 1993. Approaches to the construction of new candidate poliovirus Type 3 vaccine strains. *Dev. Biol. Stand.* 78: 161-170.
2. Lagos, R., Kotloff, K., Hoffenbach, A., San Martin, O., Abrego, P., Ureta, A.M., Pines, E., Blondeau, C., Bailleux, F. and Levine, M.M. 1998. Clinical acceptability and immunogenicity of a pentavalent parenteral combination vaccine containing diphtheria, tetanus, acellular pertussis, inactivated poliomyelitis and *Haemophilus influenzae* type b conjugate antigens in two-, four- and six-month-old Chilean infants. *Pediatr. Infect. Dis. J.* 17: 294-304.
3. Sutter, R.W., Suleiman, A.J., Malankar, P., Al-Khusaiby, S., Clements, G.B., Mehta, F., Pallansch, M.A. and Robertson, S.E. 2000. Trial of a supplemental dose of four poliovirus vaccines. *N. Engl. J. Med.* 343: 767-773.
4. Sunnerhagen, K.S. and Grimby, G. 2001. Muscular effects in late polio. *Acta Physiol. Scand.* 71: 335-340.
5. Schoub, B.D., Blackburn, N.K. and McAnerney, J.M. 2001. Seroprevalence to polio in personnel at a virology institute. *J. Infect.* 43: 128-131.
6. Martín, J., Crossland, G., Wood, D.J. and Minor, P.D. 2003. Characterization of formaldehyde-inactivated poliovirus preparations made from live-attenuated strains. *J. Gen. Virol.* 84: 1781-1788.
7. Tichmann-Schumann, I., Soemantri, P., Behre, U., Disselhoff, J., Mahler, H., Maechler, G., Sanger, R., Jacquet, J.M. and Schuerman, L. 2005. Immunogenicity and reactogenicity of four doses of diphtheria-tetanus-three-component acellular pertussis-hepatitis B-inactivated poliovirus-*Haemophilus influenzae* type b vaccine co-administered with 7-valent pneumococcal conjugate vaccine. *Pediatr. Infect. Dis. J.* 24: 70-77.
8. Roberts, L. 2006. Infectious disease. Polio experts strive to understand a puzzling outbreak. *Science* 312: 1581.
9. Falleiros Carvalho, L.H. and Weckx, L.Y. 2006. Universal use of inactivated polio vaccine. *J. Pediatr.* 82: S75-82.

SOURCE

Poliovirus Type 1 (14D2) is a mouse monoclonal antibody raised against inactivated Poliovirus Type 1.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Poliovirus Type 1 (14D2) is recommended for detection of Poliovirus Type 1 by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Poliovirus Type 2 or Type 3.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.