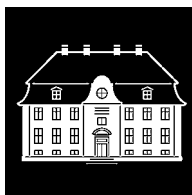


PNEUMOCOCCAL CELL WALL POLYSACCHARIDE MIXTURE (CWPS Multi)

for absorption of human serum samples

for *in vitro* diagnostic use



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Application

CWPS Multi is a 1:1 mixture of two purified pneumococcal cell wall polysaccharide antigens (CWPS1 and CWPS2) that are common to all pneumococcal serotypes. The product is used for absorbing human serum samples before quantitation of selected pneumococcal capsular polysaccharide antibodies.

CWPS Multi may also be used as a coating agent during performance of an enzyme linked immunosorbent assay (ELISA test).

Description

CWPS Multi is supplied in a vial containing a 10 mg lyophilized purified antigen mixture.

CWPS1 is equivalent to SSI product Art. No. 3459 and CWPS2 is the active contaminant identified in the pneumococcal serotype 22F capsule.

Principle

During pneumococcal vaccination the level of antibodies against pneumococcal capsular polysaccharides (CPS) are determined.

The CWPS1 and CWPS2 are contaminants in the capsule of all serotypes and almost all individuals have antibodies against CWPS1 and CWPS2, as a response to pneumococcal carriage or infection.

To measure a specific antibody response to a capsular polysaccharide it is necessary to remove the antibodies against CWPS1 and CWPS2 as they offer no protection against pneumococcal invasive diseases.

By addition of CWPS Multi to the human serum sample the antibodies against CWPS1 and CWPS2 are removed.

If this absorption step is not performed false high antibody levels will be measured.

Materials required but not provided

- Type I reagent grade water - ultra pure water (conforms to ASTM, CAP, NCCLS, USP and ISO specifications).

Procedure

Absorption of human serum

Prepare a stock solution by dissolving 10 mg lyophilized purified CWPS Multi in 1 mL type I reagent grade water (10 mg/mL). Further dilutions are made in dilution buffer. The recommended concentration of CWPS Multi for absorption varies from one procedure to another. SSI recommend use of the concentration 10 µg/mL CWPS Multi.

Coating of ELISA plates

To test the effect of absorption CWPS Multi can be used as an ELISA plate coating agent. The stock solution is diluted 1:4000 in coating buffer (2.5 µg/mL).

Storage and shelflife

Store the lyophilized purified CWPS Multi at room temperature.

Expiry date of the sealed vial is printed on the package.

The stability of the stock solution (10 mg/mL) is 1-2 weeks at 2-8°C, and can be prolonged by addition of sodium azide.

References

Konradsen, H. B. et al., A modified enzyme-linked immunosorbent assay for measuring typespecific anti-pneumococcal capsular polysaccharide antibodies, *J. Immunol. Methods*, 164(1), 13-20, 1993.

Plikaytis, B. D. et al., An analytical model applied to a multicenter pneumococcal enzyme-linked immunosorbent assay study. *J. Clin. Microbiol.*, 38(6), 2043-2050, 2000.

www.vaccine.uab.edu, "Training manual for Enzyme linked immunosorbent assay for the quantitation of *Streptococcus pneumoniae* serotype specific IgG (Pn PS ELISA). Prepared by the World Health Organization Pneumococcal Serology Reference Laboratories at the Institute of Child Health (London, England) and the Department of Pathology (Birmingham Alabama, USA), 2002.

Wernette, C. M. et al., Enzyme-Linked Immunosorbent Assay for Quantitation of Human Antibodies to Pneumococcal Polysaccharides, *Clin. Diagn. Lab. Immunol.*, 10(4), 514-519, 2003.

Skovsted I.C. et al., Purification and structure characterization of the active component in the pneumococcal 22F polysaccharide capsule used for adsorption in pneumococcal enzyme-linked immunosorbent assays. *Vaccine*. 2007 Aug 29;25(35):6490-500.



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