

Native Streptococcus Pneumoniae Antigen

Cat. No. STR-581 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

This product is a native extract of inactivated Streptococcus pneumoniae antigen taken from culture.

Background

Streptococcus pneumoniae is an infectious pathogen responsible for millions of deaths worldwide. In 2017, the WHO included S. pneumoniae as one of 12 priority pathogens due to the continued high burden of disease and rising rates of resistance to penicillin and other antibiotics (Weiser et al., 2018). Streptococcus pneumoniae, or pneumococcus, is a lancet-shaped Gram-positive, alpha-hemolytic (under aerobic conditions) or beta-hemolytic (under anaerobic conditions), facultative anaerobic member of the genus Streptococcus. They are usually found in pairs (diplococci), do not form spores and are nonmotile. S. pneumoniae are a significant human pathogenic bacterium and has a high genetic diversity with over 90 known serotypes, but only a minority of serotypes produce the majority of pneumococcal infections (CDC, 2017). This bacteria is part of the normal upper respiratory tract flora which can become pathogenic under the right conditions, typically when the immune system of the host is suppressed. This occurs more frequently during drier, colder months when airway secretions are greater and is more likely to occur in conjunction with viral infections of the upper respiratory tract, such as influenza (Weiser et al., 2018). These bacteria can cause many types of illnesses, including: pneumonia (infection of the lungs), ear infections, sinus infections, meningitis (infection of the covering around the brain and spinal cord), and bacteremia (blood stream infection). Pneumococcus bacteria are spread through coughing, sneezing, and close contact with an infected person and symptoms can include fever, cough, shortness of breath, chest pain, stiff neck, confusion and disorientation. In severe cases, pneumococcal disease can

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

cause hearing loss, brain damage, and death (CDC, 2014). Several vaccines are available and the World Health Organization recommends routine childhood pneumococcal vaccination.

Formulation

Presented in phosphate buffer with salts, pH 7.4, 0.09% Sodium Azide (NaN₃).

Notes

This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.

Type

Native

ClassID 1

Infectious Disease

GENE INFORMATION**Synonyms**

Streptococcus Pneumoniae

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