# IMMULEX™ S. PNEUMONIAE

# STATENS SERUM INSTITUT





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# IMMULEX™ S. PNEUMONIAE OMNI

#### Description

The ImmuLex<sup>M</sup> S. pneumoniae Omni is a rapid latex agglutination test for detection of Streptococcus pneumoniae (S. pneumoniae).

It is a ready-to-use latex test for quick detection of all 92 *S. pneumoniae* serotypes directly from a positive blood culture or from a pure culture. A positive reaction is visible to the naked eye within 5 seconds for blood culture and 10 seconds for pure culture.



Figure 1. ImmuLex™ S. pneumoniae Omni reactions .

Figure 1 shows four reactions. From left to right: Circle 1 and 2 are postive reactions - the first in pure culture, and the second in blood culture. Circle 3 and 4 are negative reactions, both in blood culture. Notice that circle 3 shows some granules, but this is not a true positive reaction.

The ImmuLex™ *S. pneumoniae* Omni kit contains a bottle of latex particles coated with pneumococcal antiserum raised in rabbits (0.0975% sodium azide as preservation). The ImmuLex™ *S. pneumoniae* Omni is provided in 1 mL vials which corresponds to approximately 75 tests. The kit also includes 25 reaction cards plus a positive and a negative control.

#### Background

*S. pneumoniae* is a major cause of invasive infection, and WHO estimates that approximately 1.6 million people die of severe pneumococcal infections every year.<sup>1</sup> *S. pneumoniae* is the leading cause of community-acquired pneumonia and may be the most important agent in community-acquired pneumonia of unknown etiology.<sup>2</sup> *S. pneumoniae* infection can lead to bacteremia, meningitis, pericarditis, empyema, purpura fulminans, endocarditis and/or arthritis. A rapid diagnosis of especially pneumococcal pneumonia and meningitis is important as these infections can normally be treated with penicillin, which is inexpensive, and does not induce antibiotic resistance at the same level as other antibiotics.<sup>3</sup>

# Application

A drop of latex suspension is placed next to a drop of positive blood culture medium in the circle on the reaction card. The two drops are quickly mixed with a mixing stick and spread to cover the complete area of the circle. A positive result will show within 5 seconds. A reaction after 15 seconds is a negative result. Procedure for pure culture please see package insert.

#### Sensitivity & Specificity

When testing the performance of ImmuLex<sup>TM</sup> S. pneumoniae Omni, it proved both a 100% sensitivity and a 100% specificity.

| <b>ImmuLex™ <i>S. pneumoniae</i></b> Omni | Positive Blood<br>Culture | Negative Blood<br>Culture |
|---|---------------------------|---------------------------|
| Sensitivity: 100 %                        | 155                       | 0                         |
| Specificity: 100 %                        | 0                         | 10                        |

# Storage and Shelf Life

Store at 2-8 °C. Expiry date is printed on the package. Do not freeze (if the reagents have accidentally been frozen, they should not be used).

# Product Assortment

ImmuLex™ *S. pneumoniae* Omni art. no. 91398

#### References

- 1. Community-acquired pneumonia. File TM. Lancet 2003, 3362: 1991 2001, dec 13
- Severe pneumococcal pneumonia. New strategies for management. Chiou CCC, Yu VL Curr Opin Crit Care 2006, 12: 470-476
- 3. Novel approaches to the identification of *Streptococcus pneumonia* as the cause of community-acquired pneumonia. Klugman KP, Madhi SA, Albrich WC. 2008 CID 47: 202-206

# Information and Ordering

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