

### RayBiotech, Inc.

3607 Parkway Lane suite 200 Norcross,GA 30092

Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com Email: info@raybiotech.com

## Certificate of Analysis and Data Sheet

# Mouse Anti Streptococcus Pneumoniae, Surface Protein A

| Catalog No. | Species  | Isotype    |
|-------------|----------|------------|
| MD-05-0475  | Bacteria | Mouse IgG1 |

## Description

Streptococcus pneumoniae is a major respiratory pathogen that also causes meningitis, otitis media, and bacteremia. In adults, capsular polysaccharides of *S. pneumoniae* can elicit protective antibodies against pneumococcal infection. However, in children <2 years of age polysaccharide vaccines do not effectively elicit a protective response, and children can have repeated infections with strains of the same or different capsular serotype. Therefore, protein-polysaccharide conjugates and pneumococcal proteins, including pneumolysin, neuraminidase, pneumococcal surface adhesin A, and pneumococcal surface protein A (PspA), have been considered as alternative means to induce protective immunity in infants and children. The increased frequency of isolation of multidrug-resistant strains of *S. pneumoniae* accentuates the need for an effective vaccine.

PspA, a surface protein and virulence factor found on all isolates of *S. pneumoniae*, is highly immunogenic. PspAs share many cross-reactive epitopes, and immunization with a single PspA is cross-protective in mice against fatal infection with strains of the mouse virulent capsular types. Mucosal immunization with PspA can also elicit immunity to carriage.

## **Applications**

Table Summary of antibody applications and working conditions

| Options Functions | YES | NO | Not determined | Recommended<br>Work dilution or<br>concentration |
|-------------------|-----|----|----------------|--|
| ELISA             |     |    |                |  |
| Western Blotting  |     |    | •              |  |
| Immunoassays      | •   |    |                | Detect and quantitate Strep. pneumoniae          |
| Flow Cytometry    |     |    | •              |  |
| Neutralization    |     |    | •              |  |

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

The products are furnished for LABORATORY RESEARCH USE ONLY.

Not for diagnostic or therapeutic use.



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## Specificity

This antibody recognizes pneumococcal surface protein A. Reactive with serotypes 2 (Strain D39) and 3 (Strain WU2). Not reactive on Strain WG44.1.

#### **Formulation**

0.7mg/ml purified IgG in PBS, pH 7.4.

## Preparation

Monoclonal antibody to Streptococcus pneumoniae, Surface Protein A is prepared using full-length recombinant pneumococcal surface protein A, type 2 strain D39 as its immunogen, and purified by Protein G chromatography.

## Storage

Upon receipt, aliquot and store at -20°C to -70°C. Please avoid freeze-thaw cycles.