

#### RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

# Guinea Pig Anti Streptococcus Pneumoniae

Catalog No.	<b>Species</b>	Isotype
MD-05-0474	Bacteria	Guinea Pig IgG

### 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 Work dilution or concentration
ELISA	•			For antigen detection latex agglutination
Western Blotting				
Immunoassays				
Flow Cytometry				
Neutralization				

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



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# Specificity

This antibody recognizes all Strep pneumonia serotypes tested.

#### **Formulation**

Neat liquid

# Preparation

Guinea Pig antibody to Streptococcus pneumonia is prepared using extract of species specific membrane proteins as its immunogen.

### Storage

Short term store at 2–8°C. Long term store at -20°C. Centrifuge before opening to ensure complete recovery of vial contents.