



**THE
BINDING
SITE**

PCP IgG

VaccZyme™ EIA kits for the measurement of specific Pneumococcal Capsular Polysaccharide (PCP) IgG

IgG antibodies to Pneumococcal Capsular Polysaccharide (PCP) are produced by the immune system following infection with *Streptococcus pneumoniae* or in response to immunisation with the Pneumovax™ vaccine. The measurement of specific antibodies to PCP is important in the investigation of primary immunodeficiency^{1,2,3,4}.

IMMUNODEFICIENCY

- Assessment of the ability to respond to carbohydrate antigens
- Measurement of specific IgG response to Pneumovax™ vaccination
- A valuable tool in the investigation of primary immunodeficiency

HIGH PERFORMANCE

- Assay measuring range of 3.3 to 270 mg/L
- Micro-plates coated with Pneumovax™ vaccine
- Absorption of non-specific C-polysaccharide antibodies

SCREENING ASSAY

- Ready to use reagents provided in kit format
- Accurate results within 2 hours
- Standard Enzyme Immunoassay (EIA) format for simple automation

The Binding Site assays are sensitive, precise and optimised to measure the specific antibody response to Pneumovax™



Pneumococcal Capsular Polysaccharide (PCP) IgG kit

The VaccZyme™ PCP IgG EIA kit is designed to measure the ability of an individual's immune system to respond to immunisation with Pneumovax™.

IMMUNODEFICIENCY

The pneumococcal capsular polysaccharide (PCP) antigen present on the capsule of *Streptococcus pneumoniae* induces a thymus independent immune response, predominantly of IgG2 subclass.

Failure to produce the appropriate specific antibody response or the production of functionally inactive antibodies may lead to recurrent infections in patients. These patients may present with clinical signs of immunodeficiency but with apparently normal, or even increased, IgG and IgG subclass concentrations^{5,6}. In such cases, antibodies against specific antigens should be measured in samples taken pre- and post-immunisation with an appropriate vaccine^{1,2,3}.

A normal antibody response to carbohydrate antigens occurs approximately 3 weeks after immunisation or infection.



PRODUCT SPECIFICATIONS

Measuring range	IgG	3.3 - 270 mg/L
	IgG2	1.1 - 90 mg/L
Sample dilution	1:100	
Tests per kit	1 x 96 well plate (12 x 8 microwell strips)	
Assay time	< 2 hours	
Sample incubation	30 minutes	
Conjugate incubation	30 minutes	
Substrate incubation	30 minutes	

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VaccZyme™ is a trademark of The Binding Site Ltd, Birmingham, UK.
Pneumovax™ is a trademark of Merck & Co, Inc, Rahway, NJ, USA.

PNEUMOVAX™ VACCINE

The PCP microtitre plate is coated with the Pneumovax™ vaccine (Merck and Co Inc) which contains a combination of 23 different *Streptococcus pneumoniae* serotypes: 1-5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19F, 19A, 20, 22F, 23F and 33F. These serotypes represent approximately 80% of commonly found virulent serotypes⁷.

In approximately 30% of individuals the response to vaccination is attributable to C-polysaccharide (CPS) antibodies and not to specific anti-PCP antibodies. CPS antibodies confer limited protection against pneumococcal infection and therefore The Binding Site assays incorporate CPS absorption to remove them from the samples prior to testing.

REFERENCES

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3. R.H.Buckley. Primary immunodeficiency or not? Making the correct diagnosis *Journal of Allergy and Clinical Immunology* 2006; **117(4)**: 756-758
4. P. Balmer et al. Measurement and interpretation of pneumococcal IgG levels for clinical management. *Clinical and Experimental Immunology* 2003; **133**: 364-369
5. V.L. Anderson. Uncovering a Paediatric Immunodeficiency, Part 2. *The Journal for Nurse Practitioners* 2006; **2(4)**: 237-246
6. E.G. Davies. Impaired immunity in children. *Current Paediatrics* 2006; **16**: 16-28
7. Pneumovax™ Product Insert, Merck & Co, Inc, Rahway, NJ, USA

DESCRIPTION	PACK	CODE
VaccZyme™ PCP IgG EIA kit	96 tests	MK012
PCP IgG2 EIA kit	96 tests	MK013

Please contact us for information regarding FDA clearance of these kits in the USA.



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