

LIAISON[®] Bordetella pertussis Toxin IgG and IgA

The first fully automated solution for specific
and accurate antibody detection



Infectious Disease

LIAISON® Bordetella pertussis Toxin IgG LIAISON® Bordetella pertussis Toxin IgA

A new standard of diagnosing pertussis on a fully automated platform has been reached

Pertussis, commonly known as whooping cough, is an acute respiratory infectious disease caused by the bacterium *Bordetella pertussis*. Despite extensive childhood immunisation, pertussis remains one of the world's leading causes of vaccine-preventable deaths. The detection of *Bordetella pertussis* Toxin IgG and IgA is needed to differentiate between recent *Bordetella pertussis* infection and for late stage of disease, especially in older children and adults.

Interpretation of IgG and IgA combined results

According to the European Reference Centres⁽¹⁾ for testing *Bordetella pertussis*, both IgG and IgA results must be determined in a single specimen. 931 specimens from routine testing of European and Australian laboratories were tested with LIAISON® assays and reference EIA methods. The following prevalence was obtained in the study, for IgG and IgA combined results:

<i>B. pertussis</i> IgG	<i>B. pertussis</i> IgA	Interpretation	Prevalence by LIAISON®	Prevalence by reference EIA
Negative	Negative	No infection	738 (79.3%)	736 (79.1%)
Negative	Positive	Recent infection	66 (7.1%)	80 (8.6%)
Intermediate	Positive	Recent infection	17 (1.8%)	22 (2.4%)
Positive	Positive	Recent infection	32 (3.4%)	31 (3.3%)
Positive	Negative	Recent infection	28 (3.0%)	16 (1.7%)
Intermediate	Negative	No recent infection	50 (5.4%)	46 (4.9%)

The first fully automated solution with optimal diagnostic performance for pertussis diagnosis

⁽¹⁾ Guiso N. et al. What to do and what not to do in serological diagnosis of pertussis: recommendations from EU reference laboratories. Eur J. Clin. Microbiol Infect Dis. 2011; 30: 307-3012

Main features of LIAISON® Bordetella pertussis Toxin assays

Sample Type: serum or plasma

Assay format: CLIA quantitative indirect assays

Calibration: to first International WHO 1st IS NIBSC Code 06/140

Solid phase: magnetic particles coated with purified *Bordetella pertussis* Toxin antigen

Measuring range: 10 – 140 IU/mL *Bordetella pertussis* Toxin IgG

Measuring range: 6 – 100 IU/mL *Bordetella pertussis* Toxin IgA

Calibration Stability: 4 weeks

Integral on board stability: 8 weeks

Number of tests: 100

Ordering information

LIAISON® Bordetella pertussis Toxin IgG code 318850

LIAISON® Bordetella pertussis Toxin IgA code 318860

LIAISON® Control Bordetella pertussis Toxin IgG code 318851

LIAISON® Control Bordetella pertussis Toxin IgA code 318861

AVAILABLE ON **LIAISON®** SYSTEMS

Product availability subject to required regulatory approval



The Diagnostic Specialist

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Sepsis

LIAISON[®] BRAHMS PCT[®] II GEN

**Fast, high sensitive and reliable assay
for bacterial infection and sepsis**



DiaSorin

The Diagnostic Specialist

FOR OUTSIDE THE US AND CANADA ONLY

Sepsis

LIAISON® BRAHMS PCT® II GEN

Procalcitonin (PCT) is a biomarker used for the diagnosis of bacterial infection and sepsis. PCT is a prohormone for calcitonin, and is secreted by various cell types in response to infection and inflammation. PCT as biomarker of bacterial infections is used in a variety of setting, including primary care, emergency room and intensive care, where PCT can be used to guide and monitor antibiotic treatment.

PCT serum concentration in healthy people is generally low and below 0.1 ng/mL. PCT serum concentrations are elevated in clinically relevant bacterial infections and continue to rise with the increasing severity of the disease. Rapidly declining PCT values indicate that infection is under control⁽¹⁾.

Increased PCT values - Best indicator for the severity of infection and organ dysfunction

Diagnosis	PCT [ng/mL]	Antibiotic use		
		RTI	ICU Trauma	Co - morb. COPD
Septic shock	100			
Severe sepsis	10			
Sepsis	2		▲	
Pneumonia	1		Yes	
Bronchitis	0.5	Yes	Yes	
COPD	0.25	Yes	No	Yes
	0.1	No	No	Yes
Healthy	0.01	No		No ▼

COPD= Chronic Obstructive Pulmonary Disease
 ICU= Intensive Care Unit
 RTI= Respiratory Tract Infection

LIAISON® BRAHMS PCT® II GEN Fast and highly sensitive assay

Time to first result: 16 min

Functional assay sensitivity: 0.04 ng/ml

Consider non-bacterial differential diagnosis

Adapted from Christ-Crain M & Müller B, Swiss Med Wkly 2005, 135: 451-460

Main features of LIAISON® BRAHMS PCT® II GEN

Assay format:	CLIA quantitative sandwich assay on serum and plasma
Measuring range:	0.02 – 100 ng/ml
Calibration stability:	8 weeks
Integral on board stability:	12 weeks
Repeatability:	CV% <5%
Reproducibility:	CV% <15%
Correlation:	Excellent correlation (r= 0.99) with BRAHMS PCT® sensitive KRYPTOR®
Number of tests:	100

Ordering information

LIAISON® BRAHMS PCT® II GEN	code 318040
LIAISON® Control BRAHMS PCT® II GEN	code 318041

AVAILABLE ON **LIAISON®** SYSTEMS

(1) Meisner M, Procalcitonin – Biochemistry and Clinical Diagnosis, ISBN 978-3-8374-1241-3, UNI-MED, Bremen 2010

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