Infectious Disease

LIAISON® Bordetella pertussis Toxin IgG and IgA
The first fully automated solution for specific and accurate antibody detection
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 \textit{Bordetella pertussis}. Despite extensive childhood immunisation, pertussis remains one of the world’s leading causes of vaccine-preventable deaths. The detection of \textit{Bordetella pertussis} Toxin IgG and IgA is needed to differentiate between recent \textit{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\(^\text{11}\) for testing \textit{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:

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
\textbf{B. pertussis} & \textbf{B. pertussis} & \textbf{Interpretation} & \textbf{Prevalence by} & \textbf{Prevalence by} \\
\textbf{IgG} & \textbf{IgA} & & \textbf{LIAISON}\(^\text{®}\) & \textbf{reference EIA} \\
\hline
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\%) \\
\hline
\end{tabular}
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**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 \textit{Bordetella pertussis} Toxin antigen
- **Measuring range:** 10 – 140 IU/mL \textit{Bordetella pertussis} Toxin IgG
- **Measuring range:** 6 – 100 IU/mL \textit{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