

## INTRODUCTION

apDia manufactures and sells immunoassays with applications in different fields of human *in vitro* diagnostics.

The last few years, whooping cough or pertussis and mumps are again coming up. For both diseases apDia has serological immunoassays available.

## WHOOPING COUGH

In recent years the number of whooping cough cases reported is growing, reaching approximately 348 cases in Flanders in 2012 (Vlaams Agentschap Zorg en Gezondheid).

Whooping cough or pertussis is an acute and very contagious childhood disease of the respiratory tract caused by the bacterium *Bordetella pertussis*. In older children and adults the symptoms of this disease are mostly mild. Infants have a greater risk for complications. In extreme cases pertussis can even be fatal for a baby.



<http://www.historyofvaccines.org/content/bordetella-pertussis>

A precise diagnosis is essential for an effective therapy and for the isolation of non-vaccinated children.

The apDia ***Bordetella pertussis* toxin (PT) IgG ELISA (Ref. 880601A)** is a quantitative serological test for the specific determination of IgG antibodies to *Bordetella pertussis* toxin (PT) in serum or plasma. The performance characteristics of the assay are the following:

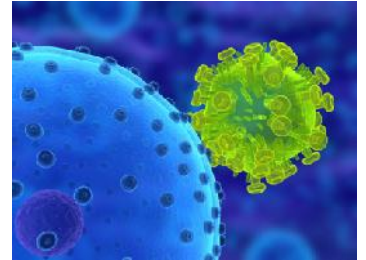
|                         |           |
|-------------------------|-----------|
| Analytical sensitivity: | < 5 IU/ml |
| Diagnostic sensitivity: | > 98%     |
| Diagnostic specificity: | > 98%     |

This ELISA is based on the use of a standard curve, calibrated in accordance with the "1<sup>st</sup> WHO International Standard Pertussis antiserum" (code 06/140). The standard concentrations are expressed in IU/ml. A Dutch study claims that screening for the presence of this parameter is sufficient to detect an acute or recent pertussis infection<sup>1</sup>.

## MUMPS

Although the mumps virus appeared to be almost vanished in Western Europe, it is slowly moving up again (Vlaams Agentschap Zorg en Gezondheid).

Mumps is a viral infection, having as most prevailing symptoms painful and thick cheeks due to inflammation of the salivary glands. The virus can be dangerous, especially for boys, since the disease involves testicular inflammation in 15-20% of all cases. The latter might result in infertility.



<http://www.wellsphere.com/pictures/mumps-virus>

To determine a patient's immune status, apDia has 2 serological tests for the qualitative determination of antibodies against the mumps virus in serum or plasma.

The **mumps virus IgG ELISA (Ref. 820101A)** allows specific detection of IgG antibodies against the mumps virus. The test has a diagnostic sensitivity and specificity of > 95% , respectively 87,5%.

The **mumps virus IgM ELISA (Ref. 820111A)** can be used to demonstrate the presence of IgM antibodies against the mumps virus. The diagnostic sensitivity and specificity of this test are both > 95%.

## REFERENCES

1. De Melker HE, Versteegh FGA, Conyn-van Spaendonck MAE, Elvers LH, Berbers GAM, van der Zee A, Schellekens JFP. Specificity and Sensitivity of High Levels of Immunoglobulin G Antibodies against Pertussis Toxin in a Single Serum Sample for Diagnosis of Infection with *Bordetella pertussis*. J. Clin. Microbiol. 2000, **38**: 800-806.

On the backside of this newsletter you can find a reply form to request more detailed information about the products mentioned above.



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**apDia is the official distributor of R-Biopharm in Belgium.**

I wish to receive additional information about following topics:

- BORDETELLA PERTUSSIS TOXIN (PT) IGG ELISA
- MUMPS VIRUS IGG ELISA
- MUMPS VIRUS IGM ELISA
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