

# PSEUDOMONAS-CF-IgG



STATENS  
SERUM  
INSTITUT

prevention and control  
of infectious diseases  
and congenital disorders

- *Surveillance of CF patients*
- *Detects chronic infection*
- *Guides antibiotic therapy*
- *Improves management of infections*



FOR IN VITRO DIAGNOSTIC USE

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## Description

Pseudomonas-CF-IgG antigen and standard control serum is used for the quantitative measurement of the antibody level of *Pseudomonas aeruginosa* in human serum samples.

The Pseudomonas-CF-IgG antigen is supplied as a 9 mg lyophilized antigen obtained by sonication of the 17 most common *P. aeruginosa* serotypes. More than 64 different antigens are detectable in the antigen pool. Pseudomonas-CF-IgG standard control serum is supplied in 1 ml and contains high titer antibodies directed against *P. aeruginosa*.

One quantity of Pseudomonas-CF-IgG antigen and standard control serum allows for 100 ELISA tests.

## Background

*P. aeruginosa* is the most important bacterial pathogen in patients with cystic fibrosis. Chronic pulmonary infection with *P. aeruginosa* is responsible for most of the morbidity and mortality in cystic fibrosis.

Chronic *P. aeruginosa* infection can be discriminated from intermittent colonization by measuring serum IgG antibodies against *P. aeruginosa*. During the chronic infection a pronounced and increasing antibody response develops whereas this is not the case in intermittently colonized patients. The level of the antibody response in chronically infected patients correlates to the severity of the infection.

Since cystic fibrosis patients may experience repeated intermittent *P. aeruginosa* colonization, they will be subject to repeated courses of antibiotic therapy. Measurements of the antibody response in such cases can be helpful in the management of the infection.

## Principle

The Pseudomonas-CF-IgG antigen is used as a coating agent in a traditional ELISA setup. Pseudomonas-CF-IgG standard control serum is used to construct a standard curve for calibration of a local standard serum. Lyophilized Pseudomonas-CF-IgG antigen is reconstituted with sterile water and coated to ELISA plates. Patient serum, standard control serum and afterwards secondary antibody are added. Absorbance is read after H<sub>2</sub>O<sub>2</sub> addition. The absorbance of the standard control serum dilutions is used to construct a standard curve. The absorbance of the patient sample is extrapolated on the human standard curve and divided by 10.

## Support

Sera producing unexplainable results may be sent to the Reference Laboratory at the Department of Clinical Microbiology & Danish Cystic Fibrosis Centre, Rigshospitalet, University of Copenhagen, Denmark together with information about the bacteriological

status of the patient for absorption of possible cross-reactive antibodies. E-mail: hoiby@inet.uni2.dk for further information.

## Storage and Shelf Life

Store the sealed vial of lyophilized Pseudomonas-CF-IgG antigen at room temperature. Expiry date of the sealed vial is printed on the package. Dissolved antigen can be frozen at -20°C and refrozen for at least 20 times without any change of activity. Pseudomonas-CF-IgG standard control serum can be stored at -20°C.

## Available Products

- Pseudomonas-CF-IgG antigen pool, lyophilized, 9 mg  
Article No. 60899
- Pseudomonas-CF-IgG standard control serum, 1 ml  
Article No. 60900

## Information and Ordering

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