



Supporting research into Celiac Disease



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Methods for celiac DELFIA® technology

Celiac disease or gluten intolerance is an autoimmune disorder caused by a combination of genetic and environmental factors. Incidence of the disorder may be as high as 1% in certain countries. Although it is relatively easy to treat, celiac disease is not always accurately diagnosed.

For the investigation of genetic factors involved in predisposition to celiac disease, PerkinElmer Life and Analytical Sciences offers its DELFIA Celiac Disease Hybridization Assay. This research assay allows identification of HLA-DQA1*05, HLA-DQB1*02 and HLA-DQB1*0302 alleles as primary genetic determinants for predisposition. 90% of celiac disease patients carry a combination of HLA-DQA1*05 and HLA-DQB1*02, and most patients not carrying the DQB1*02 haplotype are carriers of DQB1*0302.

The assay is easy to perform, and relies on sensitive time-resolved fluorescence detection. It is especially useful in investigations involving risk subjects such as first degree relatives of sufferers, or sufferers of Type 1 Diabetes Mellitus or Sjögren's syndrome.

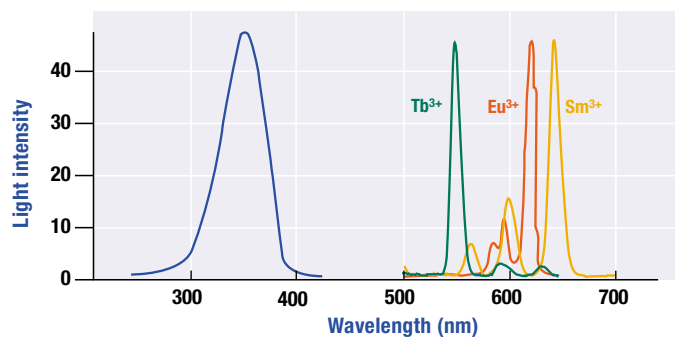
Celiac disease responds well to treatment

Those affected by celiac disease suffer intestinal damage when they eat specific gluten-containing foods such as wheat, rye and barley. Apart from causing considerable discomfort, loss of weight and anemia, untreated celiac disease will increase the risk of gastrointestinal cancer. It can also cause damage to dental enamel, osteoporosis and infertility. With the broad range of symptoms it presents, celiac disease can be difficult to diagnose. However, treatment is straightforward, involving strict adherence to a gluten-free diet.

The benefits of the DELFIA® method

DELFIA assays are widely used in clinical diagnostics, clinical research, and in drug discovery. They are characterized by gentle labelling procedures and sensitive time-resolved fluorometric measurement. The fluorescent labels employed are chelates of lanthanide metals. Since there are various lanthanides with mutually distinct fluorescence profiles, the method allows the detection of several different probes, each with its own label, as part of the same assay.

A number of lanthanide labels have unique emission spectra, with emission wavelengths between 200 and 400 nm greater than the excitation wavelength. This is the basis for sensitive simultaneous detection of several different labels using the DELFIA method.



Towards improved testing me disease with easy to use

When a middle-aged patient presents with vague symptoms of stomach trouble, celiac disease is an obvious possibility that needs to be confirmed or ruled out.

Risk alleles can be detected as part of routine neonatal screening procedures before symptoms appear.

Life Sciences

An early sign of celiac disease in prepubertal children may be slower than expected development. For example, physical growth and school performance may be affected.

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Celiac disease testing will
benefit all age groups

Ordering information

DELFIA® Celiac Disease

Hybridization Assay 4018-0010

DELFIA® Celiac Disease Probes Pack

Eu-DQB1*0302 CoD probe

Tb-DQB1*02 CoD probe

Tb-DQB1 Control CoD probe

Eu-DQA1 Control CoD probe

Sm-DQA1*05 CoD probe

Bio-CoD Hybridization control

DELFIA® Celiac Disease Reagent Pack

DELFIA Streptavidin Microtitration Strips, 4 plates (8 x 12 wells)

DELFIA Hybridization Buffer, 2 bottles (50 mL each)

DELFIA Enhancement Solution, 2 bottles (50 mL each)

DELFIA Enhancer, 1 bottle (50 mL)

DELFIA Wash Concentrate, 1 bottle (250 mL)

PerkinElmer Life and Analytical Sciences supplies innovative total solutions to identify and monitor the progression of human diseases. Our role is to help identify those apparently healthy members of the population who are sufficiently at risk of a specific disorder to justify preventive action. Testing for celiac disease is an area of special focus. In the future we will extend our product offering to encompass both genetic and serological testing.

**The products listed here are available
for research purposes only**

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