α-GliaPep

Eurospital®

Description

α-GliaPep IgA and **IgG** are enzyme immunoassays for the quantitative detection of class IgA and IgG antibodies against gliadin specific peptides.

Configuration

α-GliaPep IgA	code 9137	96 test	CE
α-GliaPep IgG	code 9138	96 test	CE

Application field

Knowledge of coeliac disease has increased very much during the last years. This has been possible mainly due to the availability of new and more specific diagnostic tools.

Anti-gliadin antibody detection is a still widely prescribed test, but its relevance had been decreasing since the introduction of antiendomysial antibodies test and, a few years later, of anti-tissue transglutaminase test, both more sensitive and more specific assays. However, detection of anti-gliadin antibodies plays an important diagnostic role in a few specific areas such as children younger than 3 years and gluten free diet monitoring.

Recent studies have shown that the use of synthetic gliadin derived peptides as solid phase provides an improved performances of these tests allowing to achieve significantly better sensitivity and specificity values.
α-GliaPep IgA and **α-GliaPep IgG** have been developed keeping in mind these new requirements and to complete Eurospital's diagnostic offer for coeliac disease, thus confirming the strategic relevance of this field for the company.

Features of the product

- Antigen made up of specific gliadin derived peptide.
- High specificity
- Unique sample dilution for both IgA and IgG (1:100)
- The same sample dilution can be used with Eu-tTG IgA/IgG and α-Gliatest S Chromo IgA/IgG kits
- Total incubation time: 90 minutes at RT

Procedure outline

- Addition of calibrators, controls and properly diluted sera
- Incubation at RT for 45 minutes
- Washing step
- Addition of conjugate
- Incubation at RT for 30 minutes
- Washing step
- Addition of substrate
- Incubation at RT for 15 minutes
- Addition of Stop Solution
- Reading at 450 nm

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Performance

A study has been carried out in three reference centres to evaluate diagnostic sensitivity and specificity of α-GliaPep IgA and IgG. The study included sera from clinically diagnosed coeliac patients, healthy patients and patients with food intolerance. Diagnosis of coeliac disease has been based on intestinal biopsy following clinical symptoms and positive serology testing.

Results

α-GliaPep IgA & IgG			
	Coeliac subjects	Subjects with Food Intolerance	Healthy subjects
Positive	98	3	4
Negative	22	23	128
Total	120	26	132

α-GliaPep IgA & IgG	
Diagnostic Sensitivity	82%
Diagnostic Specificity	97% (95,6%*)

(*) if patients with food intolerance are included.

Conclusions

The results achieved in the study show that **α-GliaPep IgA** and **IgG** have an improved sensitivity and a better specificity than classic anti-gliadin antibody test kits. Specificity is very high even when results from patients with food intolerance are considered. As reported in the literature, patients with food intolerance might show falsely elevated positive results when tested for anti-gliadin antibody, namely IgG. These results may lead to wrong interpretation.
Whether to use **α-GliaPep IgA** and **IgG** or **α-Gliatest S Chromo IgA** and **IgG** depends upon the objectives of each clinical centre.
If the objective is to identify coeliac patients, **α-GliaPep IgA** and **IgG** should be preferred due to their higher specificity which may almost completely exclude presence of false positive results. On the other hand, if the objective is to monitor and/or look for possible alterations of the intestinal mucosa, **α-Gliatest S Chromo IgA** and **IgG** might allow to detect possible shift of the antibody levels due to an alteration of the intestinal mucosa.

Reference literature

1. *Osman A.A. et al: B cell epithopes of gliadin. Clin Exp Immunol 2000: 121: 248-254*
2. *Bateman E.A.L et al : IgA antibodies of coeliac disease patients recognise a dominant T cell epitope of A-Gliadin. Gut. 2004 Sep;53(9):1274-8.*
3. *Aleanzi M. et al: Celiac Disease: Antibody recognition against native and selectively deamidated gliadin peptides. Clin Chem. 2001 Nov;47(11):2023-8.*
4. *Sugai E., et al: Accuracy of testing for antibodies to synthetic glaidin related peptides in celiac disease- Clin Gastroenterol Hepatol. 2006 Sep;4(9):1112-7*

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