

**Anti-Gliadin peptide  
Mouse monoclonal antibody**

PRODUCT NO.

**HYB 314-02**

Subclass: IgG2a/k

Clone: 4F3

PRESENTATION

Preparation: Protein-A/G purified

Content: Available in 200  $\mu$ L and 1 mL size. 1 mg/mL +/- 15%. See Certificate of Analysis for details.

Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide

Storage: 4-8°C without exposure to light. No precautions necessary during handling.

ANTIGEN

Celiac disease is associated with a CD4<sup>+</sup> T-cell response to epitopes of gliadin presented by HLA-DQ2 or -DQ8 class II MHC molecules. These epitopes are present in a 33-mer peptide of wheat alpha-gliadin, residues 56-88, which is resistant to digestion and forms a substrate for tissue transglutaminase (TG2), generating the glutamic acid residues essential for binding to HLA-DQ2. The immunogen corresponds to a deamidated form of a region that includes the T-cell epitopes, including the immunodominant PQPQLPY region and two PXPQP motifs associated with binding to IgA from patients with celiac disease. Complete homology exists between residues 63-73, 70-80 and 77-87 of wheat alpha gliadin.

IMMUNOGEN

Gliadin-related peptide Lys57-Glu65-[alpha-gliadin (58-73)] (KLQFPQPQLPYQPQ) adsorbed onto aluminum hydroxide gel

SPECIFICITY

HYB 314-02 cross-reacts fully with the non-deamidated peptide KLQFPQPQLPYQPQ

EPI TOPE SPECIFICITY

The epitope is located in the Lys57-Glu65-[alpha-gliadin (58-73)] (KLQFPQPQLPYQPQ) peptide.

REACTIVITY

HYB 314-02 reacts equally strong with both the deamidated peptide (KLQFPQPQLPYQPQ) and the non-deamidated peptide (KLQFPQPQLPYQPQ) when coated directly in an immunoplate.

CULTURE MEDIUM

RPMI 1640 with 2-10% fetal calf serum

FUSION PARTNER

X63.Ag8.653

IMMUNIZATION

Female CF1 x BALB/c mice immunized by intraperitoneal injection

APPLICATION

Method	Usability	References
ELISA	Yes	1
Immunoblotting	Not determined	
Immunohistochemistry	Not determined	

REFERENCES

- Skovbjerg H, Koch C, Anthonen D, Sjostrom H (2004) Deamidation and cross-linking of gliadin peptides by transglutaminases and the relation to celiac disease. *Biochim Biophys Acta* 1690:220-230.
- Mowat AM (2003) Coeliac disease - a meeting point for genetics, immunology, and protein chemistry. *Lancet* 361:1290-2.

**CONDITIONS**

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