NQAC
Nestlé Quality Assurance Center
Dublin

Technical Datasheet

Analysis Name: Detection of Gluten Traces by Competitive ELISA - r-Biopharm

Method Number: NQA–59.0001

Scope of Application: The quantitative determination of gluten protein fragments from wheat, rye and barley in food and beverage due to fermentation or hydrolysis.

Description: This is a competitive ELISA analysis. The foundation of this test is the antigen-antibody reaction. After the sample has been extracted with 60 % (v/v) ethanol or fish gelatin in 60 % (v/v) ethanol for tannin/polyphenol containing products, the sample is added to the gliadin coated microtiter plates along with conjugate. Free and immobilized gliadin compete for the gliadin antibody-binding sites, unbound enzyme conjugate is removed by a wash step. A substrate/chromogen solution is added to the wells and incubated, bound enzyme conjugate converts the chromogen into a blue product. A stop solution is added which results in a color change from blue to yellow. The absorbance of the solution is inversely proportional to gliadin and measure at 450 nm.

Sample Weight Required: 50 g

Analytical Platform: Microplate Reader

Special Information: Original container needed

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
Gluten (Hydrolytes)	Gluten	mg/kg	10	40%

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