

**Technologies** 



# Gluten Kits from Ingenasa at Eurofins Technologies – Hydrolyzed Gluten

## **Gluten detection in food**

Gluten intolerance is characterized by adverse reactions to gluten, a protein found in wheat, barley and rye. People having celiac disease or gluten sensitivity need to avoid foods and other products that trigger symptoms.

The **SENSI***Spec* **INgezim Hydrolyzed Gluten** is a direct immunoassay to identify and to quantify hydrolyzed prolamins. It uses the R5 Monoclonal Antibody. **Limit of Detection: 0,25 ppm.** 

#### Technical basis of the kit

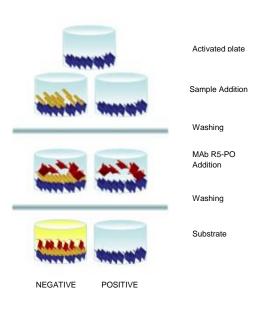
- Chemically activated 48 wells plate.
- If the sample contains the antigen, the prolamins extracted from the sample are fixed to the plate wells, even if they are hydrolyzed.
- After a washing step, when the R5 MAb-PO is added, it will bind to the fixed prolamins of the sample.
- Binding is detected by a colorimetric reaction after the addition of the substrate. This reaction is directly proportional to the amount of gluten in the well.

### Application

The assay has been designed for the detection of Gluten in hydrolyzed samples (beer, whiskey, syrup...)

### Key benefits of the ELISA Kits

- Simple, economical and rapid analysis
- High sensitivity
- Does not cross-react with non-toxic prolamins of corn and rice



#### Sensitivity

The assay is able to detect 0.25ppm of gluten, by using a linear regression curve. It leads to more precise results.

#### Specificity

The specificity of the MAb used in the assay was determined by the immunoblotting technique. The MAb is able to detect specifically the prolamins of gluten present in wheat, rye and barley (gliadin, secalin and hordein respectively).

#### Comparison with the DAS ELISA

When comparing several beer samples, the recovery it is too much higher by using the DIRECT ELISA than using the DAS (Double Antibody Sandwich) ELISA.

#### 180 160 140 120 Gluten 100 DIRECT ELISA DAS ELISA 80 bpm 60 40 20 2 3 4 5 6 1 7 8 Beers

#### Kit content

- Microtiter plate of 48 wells
- European Gliadin Standard (100X concentrated)
- Vial with Anti prolamins MAb Conjugate
- Bottle with Washing Solution
- Bottle with diluent
- Bottle with substrate (TMB)
- Bottle with stop solution
- Bottle with Extraction Solution

#### **Ordering information**

Article No.	Product name
30.GLH.K.2.	SENSI Spec INgezim Hydrolyzed Gluten 48 wells

Shelf life: 12 months (stored at 4°C)

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