

Genetically Modified Organism Testing



Your Challenges

Genetically Modified Organisms (GMO's) are organisms which undergo modification on their DNA structure through biotechnology. Foodstuffs manufactured or containing ingredients of GMOs are considered Genetically Modified (GM) foods. Technology used in genetic modification involves inserting external genes from one species in order to alter the property of another species which would otherwise not be achieved by conventional reproductive means.

With the general public aware of the existence of genetically modified foods, manufacturers and retailers alike are faced with consumers concerns regarding the contents of the food products in which they consume.

Our Solutions

At Intertek, we offer an integrated comprehensive GMO detection system of unsurpassed accuracy and reliability, which entails:

1. Detection of all known GMOs in the marketplace
2. Effective on raw crops and a full range of refined foods
3. Efficient and effective sampling plan is in place to obtain the most representative sample
4. Two analytic methods provide technical and cost options to the client
5. Ongoing research and development program to stay abreast of every GMO released into the marketplace and to develop new methods to meet customer needs

Analytical Method

At present, our laboratory offers tests for the presence of GMOs in a wide range of food materials, including flow and other milled products, raw ingredients, and processed foods.

Our GMO testing is Polymerase Chain Reaction (PCR) based with vigorous controls that eliminates false positives and negatives. In order to provide an accurate result, we use multiple primer sets to duplicate and to insure testing integrity. Our testing methods are validated by adhering to the ISO 25 guidelines.

Qualitative Method

A qualitative test can quickly determine the presence of GMOs materials in the test sample. Each testing gene shall specify the target sequence. PCR products are detected by gel electrophoresis or an appropriate alternative, if necessary, after isolation by means of a suitable separation procedure. The identity of any detected target sequence can be verified by an appropriate technique (e.g. by restriction enzyme analysis, by hybridization or by DNA sequence analysis). A qualitative result shall clearly demonstrate the presence or absence of the genetic element under study, relative to appropriate controls.



Quantitative Method

A quantitative test determines the amount of GMOs DNA in the test samples. This test is offered after samples test positive for GMOs ingredients in the qualitative test or can be used as the primary testing method if requested. Quantitation may be performed using competitive or real-time PCR. A quantitative analysis should clearly express the quantity of the target genetic element, relative to the quantity of a specific reference, appropriate controls, and be within the dynamic range of the analytical method.

The Certification Program

The Certification Program operates independently to verify the food manufacturing systems to be free from GMO contamination. We provide on-site inspections/audits together with documentation reviews, in combination with rigorous detection of GMO to help the industry to obtain GMO-free claims on their products. Non-GMO Certification, also available by Intertek, is offered in order to guarantee the quality and safety of food production processes themselves, but not the actual food product.

For more information, please visit us at www.intertek.com/food.

Intertek Food Services Regional Contacts:

Greater China

Tel: +86 21 61206060-6267
Email: food.gc@intertek.com

North America

Tel: +1 630 481 3177
Email: food.na@intertek.com

Europe, Middle East, Africa

Tel: +49 711 27311 0
Email: food.emea@intertek.com

Asia Pacific

Tel: +66 2 939 0661, 930 6554
Email: food.ap@intertek.com

Latin America

Tel: +55 (11) 3707 0581
Email: food.la@intertek.com

India

Tel: +91 22 66934848
Email: food.india@intertek.com