



Announcing Expanded Biochemistry Services

Just in time for our 10th anniversary, we are proud to have added biochemistry to our ever-growing menu of services. In addition to our long-standing testing services in chemistry and microbiology, we now offer many new tests, such as collagen type identification through SDS-PAGE, animal origin determination through DNA testing, determination and identification of purity and activity of digestive enzymes, and analysis of Genetically Modified Organisms (GMO) in foods and nutritional supplements through Real Time Polymerase Chain Reaction (RT-PCR). Additionally, the introduction of DNA testing has expanded our microbiology services to include microorganism identification.

Collagen Type and Animal Origin: There are ten types of collagens, which are important structural proteins found in our body. Collagen sources and types are important information for truthful consumable product labeling. We offer testing by SDS-PAGE, the most utilized technique in identification and confirmation of collagen types. We also offer testing for animal origin and collagen types confirmation by ELISA and Real Time Polymerase Chain Reaction (RT-PCR).

Digestive Enzymes: Digestive enzymes are becoming increasingly popular in dietary supplements. We currently test several dozen different enzymes using official methods found in USP/NF, FCC, JP, as well as by manufacturers' QC method.

Genetically Modified Organisms (GMO): There is a growing concern that introducing engineered genes into our food source may have adverse effects on human health and the environment¹. As a result of these and other possible impacts, consumer attitudes toward GMO ingredients have been changing in the US. Most recently, California's Proposition 37 reflected increasing preference for GMO labeling, which is already being regulated in regions such as the European Union, China, Japan, and India. It is likely that studies and awareness of GM ingredients will continue to grow. In preparation for the future, we are pleased to announce the addition of our GMO testing service, utilizing one of the most advanced RT-PCR instruments available, Applied Biosystems 7500 FAST. With this new instrument we are able to detect GMO presence, as well as accurate pathogen testing by DNA.

Keywords: SDS-PAGE, DNA, PCR, GMO, Enzyme, Collagen, Collagen types

¹ Séralini, Clair, Mesnage, et al. 2012. Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize. *Food Chem Toxicol.* 50 (2012), 4221-31.

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