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PRESS RELEASE

FOR IMMEDIATE RELEASE

Dyad Labs Confirms Nutraceutical Industry Self-Regulation Compliance Through Blind Protein ID Tests on 25 Leading Products

Salt Lake City, Utah, November 28, 2018 – During the month of October 2018, Dyad Labs conducted 25 highly advanced protein identification tests and confirmed that the nutraceutical industry's practice of self-regulation is largely effective regarding label accuracy of protein products. Until very recently, protein source testing methods have been subjective and not benefited from any direct analysis. With the price differential of various protein sources varying widely; many have suspected that without selective testing, some brands would claim an expensive protein source, but substitute a less expensive protein. Our tests found this was not the case.

The challenge is that current testing methods (Dumas and Kjeldahl methods are the most widely used) only measure nitrogen which comes from protein, and are not a direct analysis of protein or a selective test for specific protein sources. These testing limitations have made it possible for unscrupulous companies to engage in "protein spiking" or the adulteration of products with urea, free amino acids, etc. which give "false positives" to the presence/quantity of protein. Solving this problem has been the focus of food safety and nutritional chemists for years.

Using LC/MS/MS technology and a method developed internally, Dyad Labs is now able to identify specific protein sources in both raw ingredient and finished good samples. Using this technology, Dyad Labs conducted protein identification tests on 25 different protein supplement products purchased through both local and online retailers without the knowledge of either the brands or the retail stores chosen. Products from among the leading supplement brands were chosen and five protein sources we selected for testing. Five products from each of the five sources were analyzed: pea protein, rice protein, soy protein, casein, and whey protein.

RESULTS:

The 25 samples tested confirmed that the "Claimed Protein Source" on the product label was indeed the source of the protein in each product.

More specifically, of the plant-based proteins, all 15 samples tested (5 from each of Soy, Pea and Rice) confirmed the presence of only the specific label claimed plant-based protein. In those products where a blend of plant proteins was claimed, we were able to detect the presence of each of the analyzed proteins in the "blended" ingredients in most cases (4 out of 5 samples tested). The one outlier may have no longer been an intact protein.

Regarding milk-based proteins, the tests found whey present in all 5 of the "100% Whey" products and casein present in all 5 of the "100% Casein" products. The presence of some whey protein in "100% Casein" samples (5 out of 5 samples tested), and the presence of some casein in "100% Whey" samples (3 out of 5 samples tested) was not unexpected, and is likely the result of the manufacturing process used by some milk-based protein suppliers. The fact that some products had no trace of casein in whey products likely indicates that different manufactures are using different processes in their production (some more effective than others).

ABOUT THE PROTEIN IDENTIFICATION TESTING METHOD:

Dyad Labs has created testing methods that look at the specific peptides present in each sample and detect protein levels above ~2000 ppm. Both methods use a trypsin digest, followed up with specific peptide monitoring using LC/MS/MS. These methods are currently the most selective methods available for protein confirmation within the industry, and were given first-action status by the Association of Analytical Chemists (AOAC) in December 2017. Since its founding in 1884, the AOAC has been setting global standards analytical chemistry testing protocols. The specific methods are listed as:

- AOAC 2017.11: Pea, Rice and Soy
- AOAC 2017.12 Whey and Casein

ABOUT DYAD LABS

Dyad Labs (then called Genysis Labs) was created as the in-house testing laboratory for a large contract manufacturer of nutritional supplement products. As nationally branded protein shakes, pre-workout drinks and other nutraceutical products sought confirmation that their raw ingredients used in the making of their products were exactly what they claimed to be; Dyad began the work of finding new and more accurate ways to identify, quantify and assess the purity and potency of ingredients and finished goods.

Today, Dyad has evolved into a completely independent ISO/IEC 17025:2005 accredited contract laboratory offering a full range of chemical and microbiological testing services with the capacity to meet the rapidly evolving needs of the nutraceutical industry. With our brand-new Utah facility housing nine separate labs in over 30,000 sq ft., Dyad continues to provide transparent, specialized systems to exceed the testing needs of leading sports nutrition, direct selling, and food companies all around the world.

Dyad Lab's instrumentation capabilities include multiple Liquid Chromatography with Tandem Mass Spectrometry (LC/MS/MS) systems and ultra-pressure liquid chromatography (UPLC) with photo-diode array (PDA) and MS detection. They also include GC/MS/MS and GC/FID analyses; as well as trace metal and mineral testing services by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) and Direct Mercury Analyzer (DMA). Fat, fiber, glutens, nitrogen analysis, FTIR, water activity, density testing, stability, and several other chemical tests are also available.

To learn more about Dyad Labs and our facilities, visit dyadlabs.com. Together, we are Dyad.