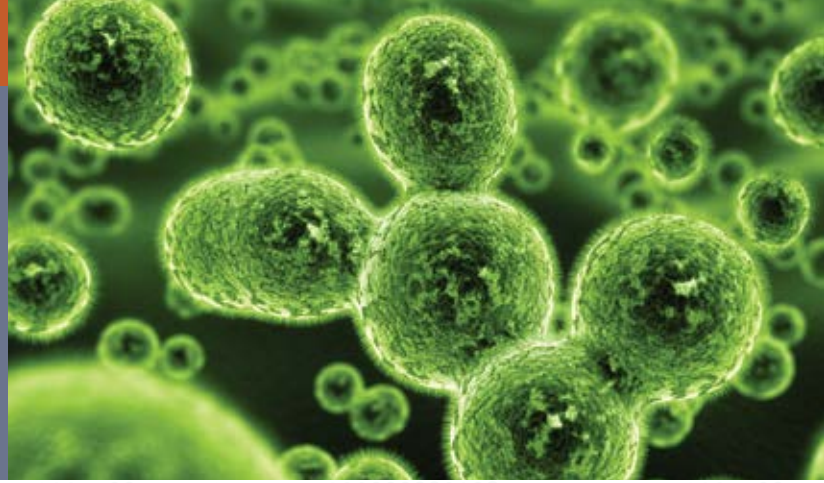


Hydrolyzed Proteins for Probiotics and Nutraceuticals



Is Cell Count Important to You and Your Bottom Line?

Nu-Tek BioScience's yield-boosting products can provide the increase you need.

The current trend in human and animal health management is to develop more homeopathic remedies for better health outcomes. Probiotic preparations continue to be a major growth opportunity in these industries. Nu-Tek BioScience's Animal-Free, Kosher, Non-GM hydrolysates and peptones were developed for these types of applications.

Nu-Tek BioScience's goal is to meet and exceed the performance of existing products available to the

fermentation scientist. Our range of products include hydrolysates and peptones derived from soy, pea and yeast. Customers have been using our peptones with success for years.

Data from an independent University has shown significant increases in yield and growth rates of several typical probiotic organisms. Improvements in fermentation have been observed in *Lactobacillus sp.*, *Bacillus sp.*, and *Bifidobacterium sp.*

The following figures compare the performance of Nu-Tek Soy Peptone HSP-A and Nu-Tek Pea Peptone HPP-A versus the two most common competitive products used in *Lactobacillus sp.* and *Bifidobacterium sp.* fermentations:

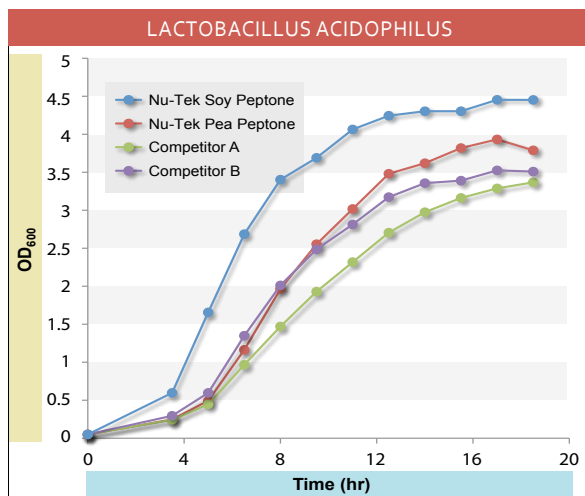


Figure 1. Growth curves of *L. acidophilus* (ATCC 314) in 0.1% TN from peptone; 0.8% Beef Extract, 0.4% Yeast extract, 2 % Glucose, 0.1 % polysorbate 80, 0.2% K₂HPO₄, 0.5 % Sodium Acetate, 0.2% Ammonium Citrate, 0.02% Magnesium Sulfate and 0.005% Manganese Sulfate, at 37°C without shaking in 5% CO₂ generated by an Anaerobe GasPak for micro-aerophilic conditions. The different media were inoculated from an overnight culture grown in the corresponding peptone.

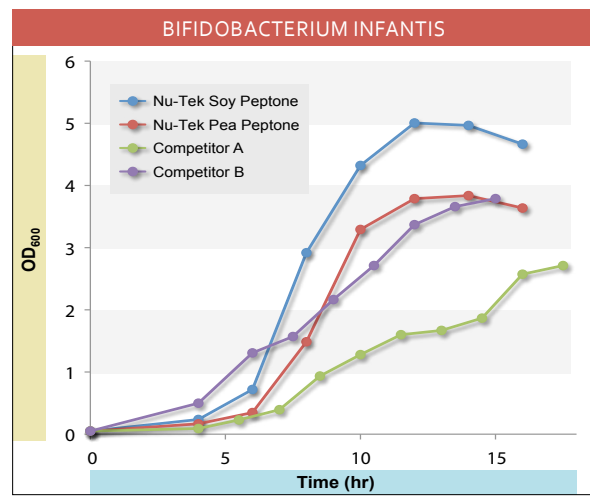
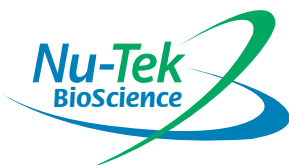


Figure 2. Cultures *B. infantis* were grown in pre-reduced 0.1% TN, 1X Mg, 0.5% glucose, 0.05% cysteine media at 37°C in an anaerobe chamber using a BD anaerobe GasPak system. Each time point was taken from a separate 3 mL culture. All media were inoculated with a volume of an overnight culture of *B. infantis* grown in pre-reduced media.

For additional information and/or samples, please contact Nu-Tek BioScience at info@nu-tekbioscience.com or 952-936-3600.

This information is presented in good faith and great care was used in its preparation. However, no warranty, guarantee, or freedom from patent infringement is implied or inferred. This information is offered solely for your consideration and verification.

technologies for the biotech and nutraceutical ingredient industries



952.936.3600
5400 Opportunity Court,
Suite 120
Minnetonka, MN 55343
www.Nu-TekBioScience.com