

BD Bacto™ Casitone
 BD BBL™ Trypticase™ Peptone
 BD Bacto™ Tryptone
 BD BiTek™ Tryptone

Enzymatic Digests of Casein Product Description

BD Bacto™ Casitone is a pancreatic digest of casein. The manufacturing process for an enzymatic digest of casein is not as destructive as an acid hydrolysis. Thus, the casein is not broken down as completely into its constituent components. In many cases this makes for a more nutritious hydrolysate, especially for those organisms that prefer peptides to amino acids.

BD BBL™ Trypticase™ Peptone is a pancreatic digest of casein and is the primary nitrogen source in trypticase soy broth and agar.

BD Bacto™ Tryptone is a pancreatic digest of casein. It was developed while investigating a peptone particularly suitable for the elaboration of indole by bacteria. It is also notable for the absence of detectable levels of carbohydrates.

BD BiTek™ Tryptone is prepared similarly to BD Bacto™ Tryptone, but the final product goes through fewer refinement steps during processing.

Potential Applications

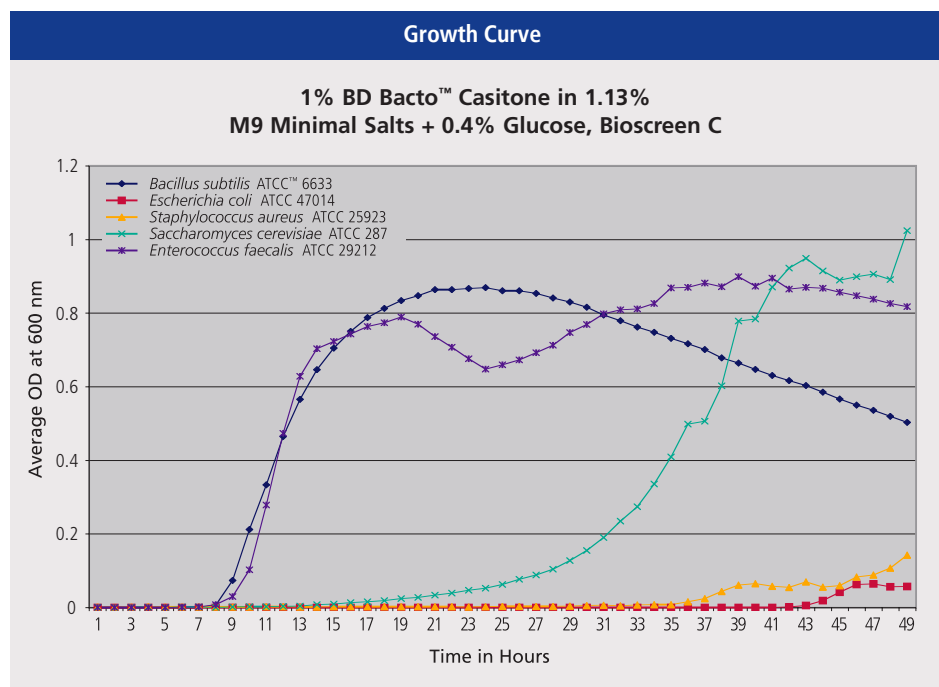
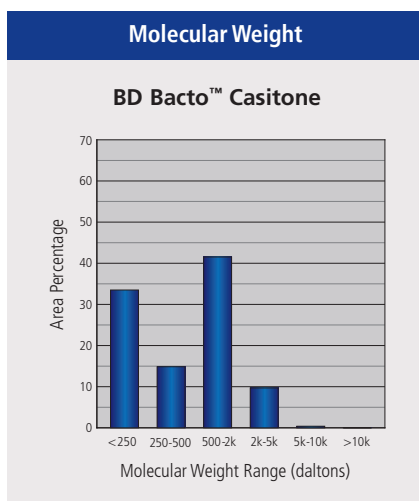
BD Bacto™ Casitone can be used as a component in microbiological media or in fermentation applications.

The stability of lyophilized influenza virus vaccine has been shown to be augmented by the addition of 2% casitone.⁽¹⁾

BD BBL™ Trypticase™ Peptone is recommended for use in media formulations, when good growth of fungi and bacteria is required. It is referenced in Official Methods of Analysis of AOAC International.⁽²⁾

BD Bacto™ Tryptone has been used in conjunction with casamino acids in nutritional studies to determine amino acids vs peptide utilization.^(3,4) BD Bacto™ Tryptone also works well in fermentation applications. It has been used successfully with common organisms such as *Escherichia coli*,⁽⁵⁾ as well as uncommon organisms such as the diatom *Nitzschia laevis*.⁽⁶⁾

BD BiTek™ Tryptone provides some of the same benefits as BD Bacto™ Tryptone in instances when a less refined hydrolysate can be utilized.



Physical Characteristics

BD Bacto™ Casitone appears as tan, free-flowing granules.

BD BBL™ Trypticase™ Peptone is a fine, homogeneous powder, free of extraneous material.

BD Bacto™ Tryptone is a light beige, homogeneous, free-flowing powder.

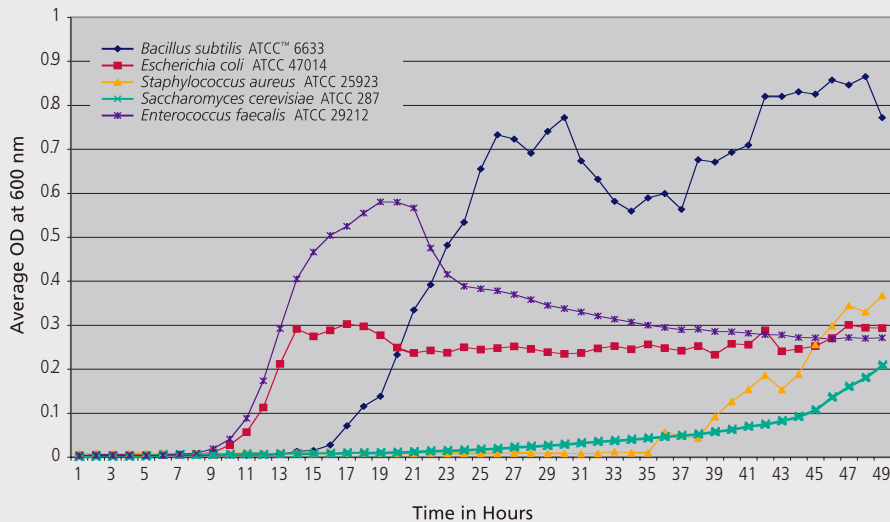
BD BiTek™ Tryptone is a light beige, homogeneous, free-flowing powder.

Availability

Product Description	Cat. No.	Qty.
BD Bacto™ Casitone	225930	500g
BD Bacto™ Casitone	225910	10kg
BD BBL™ Trypticase™ Peptone	211921	454g
BD BBL™ Trypticase™ Peptone	211922	5lb (2.3kg)
BD BBL™ Trypticase™ Peptone	211923	25lb (11.3kg)
BD Bacto™ Tryptone	211705	500g
BD Bacto™ Tryptone	211699	2kg
BD Bacto™ Tryptone	211701	10kg
BD BiTek™ Tryptone	251420	10kg

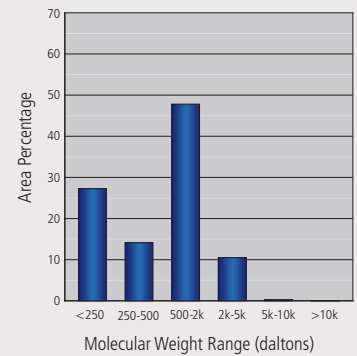
Growth Curve

1% BD BBL™ Trypticase™ Peptone in 1.13% M9 Minimal Salts + 0.4% Glucose, Bioscreen C



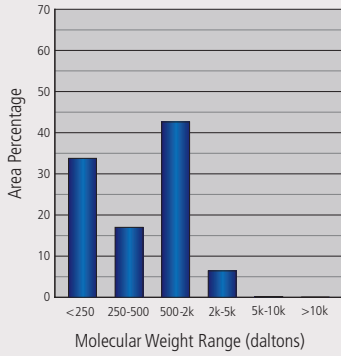
Molecular Weight

BD BBL™ Trypticase™ Peptone



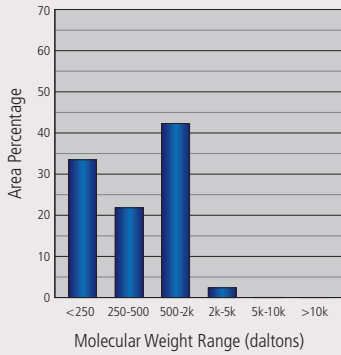
Molecular Weight

BD Bacto™ Tryptone



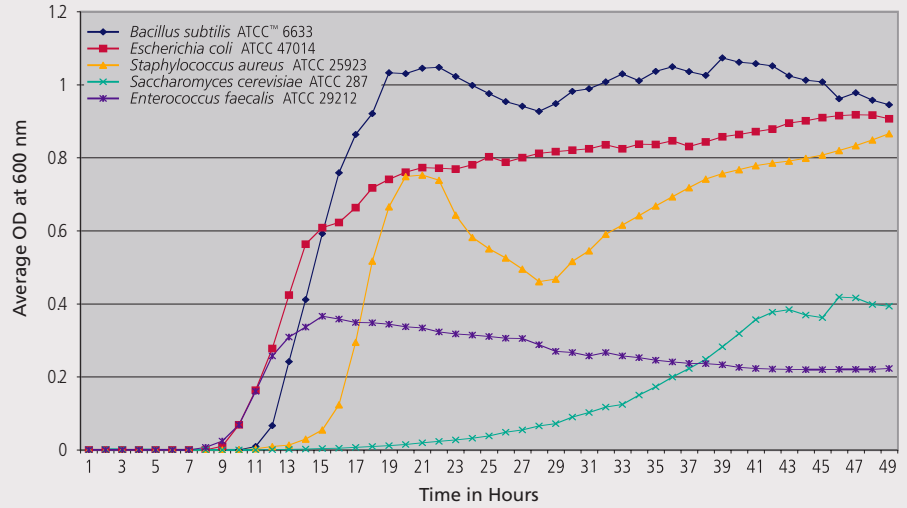
Molecular Weight

BD BiTek™ Tryptone



Growth Curve

1% BD Bacto™ Tryptone in 1.13% M9 Minimal Salts + 0.4% Glucose, Bioscreen C



References

1. Yannarell, Goldberg and Hjorth. 2002 Stabilizing cold-adapted influenza virus vaccine under various storage conditions. *J. Virol. Methods.* 102(1-2):15-25.
2. Horowitz. (ed). 2005. Official methods of analysis of AOAC international. 18th ed. AOAC International, Gaithersburg, MD.
3. Takahashi and Yamada. 2000. Metabolic pathways for cytotoxic end product formation from glutamate- and aspartate-containing peptides by *Porphyromonas gingivalis* J. *Bacteriol.* 182:4704-4710.
4. Nagel, Oostra, Trammer and Rinzema. 1999. Improved model system for solid-substrate fermentation: effects of pH, nutrients and buffer on fungal growth rate. *Process Biochem.* 35:69-75.
5. Sivakesavs, Chen, Hackett, Huang, Lam, Lam, Siu, Wong and Wong. 1999. Production of excreted human epidermal growth factor (hEGF) by an efficient recombinant *Escherichia coli* system. *Process Biochem.* 34:893-900.
6. Wen and Chen. 2001. Optimization of nitrogen sources for heterotrophic production of eicosapentaenoic acid by the diatom *Nitzschia laevis*. *Enzyme Microbia Technol.* 29:341-347.