

BBL™ Phytone™ Peptone

Difco™ Select Phytone™ UF

Difco™ Select Soytone

Bacto™ Soytone

Product Description

All the Difco™ and BBL™ brand soy peptones are enzymatic digests of soybean meal/flour. They are recommended for use in media for the cultivation of a wide variety of organisms, including fungi. The soybean protein in these peptones contains naturally occurring high concentrations of vitamins and carbohydrates.

Potential Applications

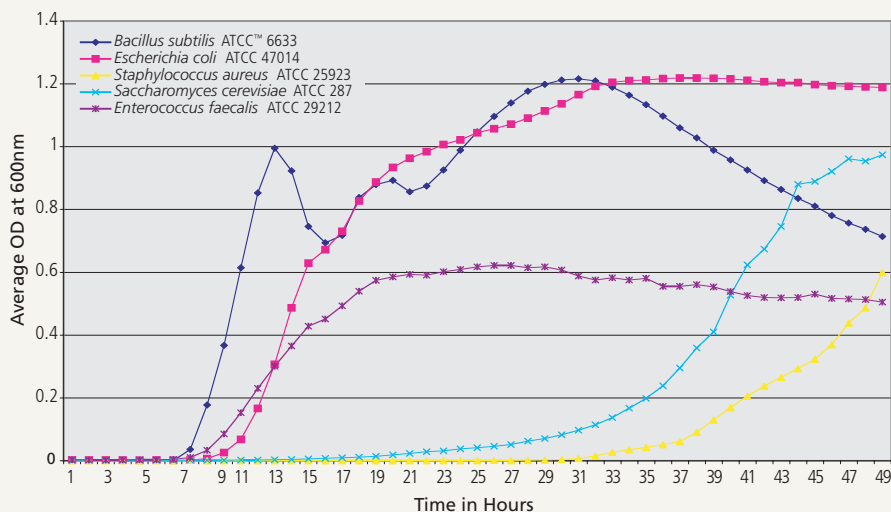
BD offers a diverse choice of soy peptones. The individual characteristics of each peptone are the result of processing methods engineered to consistently deliver these characteristics from batch to batch. The nutritional requirements of microorganisms and cell lines vary according to each individual strain. While some organisms or cell lines may prefer short chain or free amino acids, others benefit from longer chain amino acids. While the typical analysis profiles for each peptone in this manual can help direct the end-user to the correct peptone match, it is recommended that end-users supplement the typical analytical information with evaluations in their own individual growth models.

Select Phytone™ UF is an ultrafiltered peptone that was developed specifically for the tissue culture market. Its nitrogen content combined with the naturally occurring vitamins has demonstrated remarkable growth support with monoclonal antibodies and protein expression. It has an endotoxin level of less than or equal to 500 EU/g.

BD offers three other soy peptone products suitable for a variety of bacterial cultures.

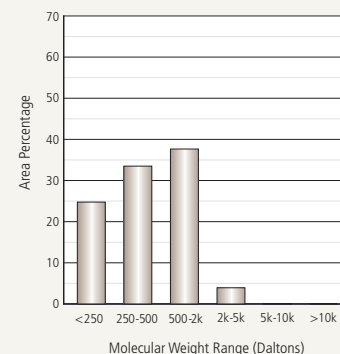
Growth Curve

1% BBL™ Phytone™ Peptone in 1.13% M9 Minimal Salts + 0.4% Glucose, BioScreen C



Molecular Weight

BBL™ Phytone™ Peptone

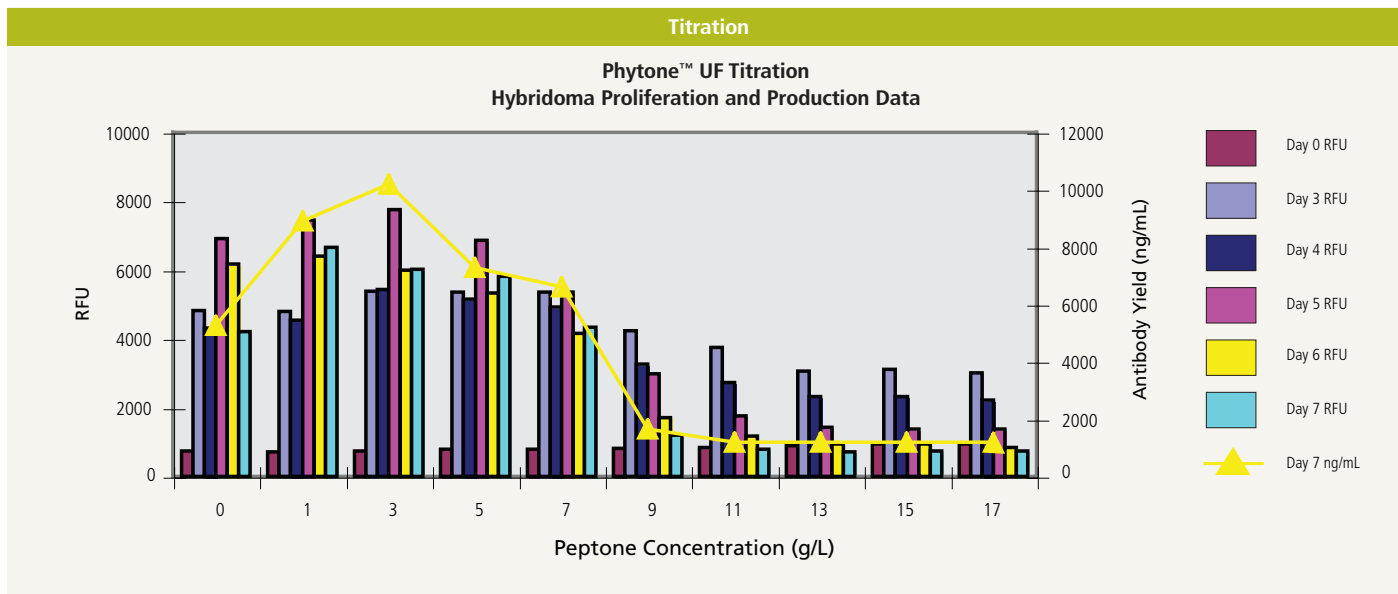
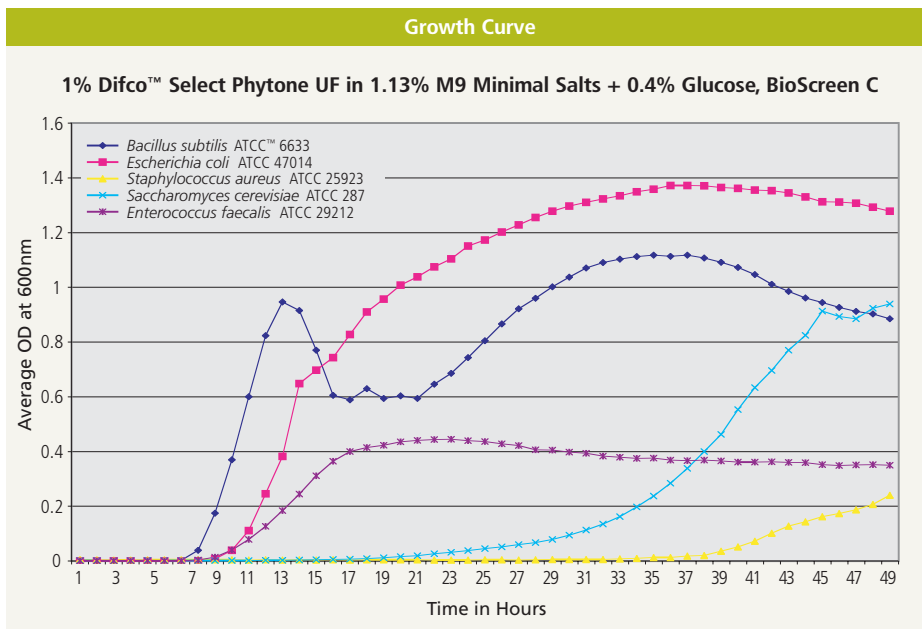
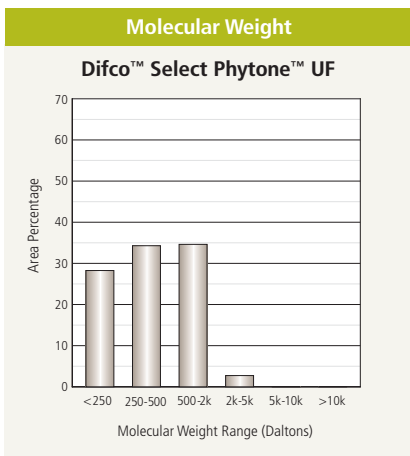




Phytone Peptone is an animal-free soy peptone. Phytone Peptone retains the high vitamin and high carbohydrate content of the soy plant tissue. It is an excellent plant peptone for the cultivation of fungi and fastidious types of bacteria, such as members of the *Clostridium* and *Neisseria* genera.¹ It has been used in cell culture applications due to its high carbohydrate content.

Select Soytone demonstrates excellent growth support for *Escherichia coli*. Select Soytone is also used in Select APS™ Super Broth. Subtle differences in the digestion process give Select Soytone improved performance in cell culture.

Bacto™ Soytone was found to be effective in the recovery of stressed *E. coli*.² It was found that Bacto Soytone with the addition of 7 vitamins replaced yeast extract as an economical



alternative for the production of lactic acid by *Lactobacillus rhamnosus*.³ It should be noted that Bacto Soytone utilizes an animal based enzyme in the digestion of the soy flour.

Physical Characteristics

BBL™ Phytone™ Peptone is a light tan, free-flowing, homogeneous powder.

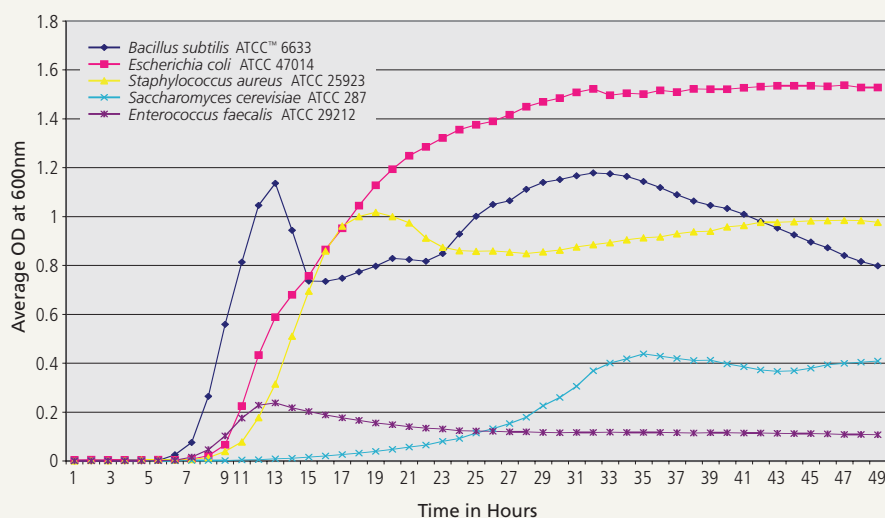
Difco™ Select Phytone™ UF is a light tan, free-flowing, homogeneous powder.

Difco™ Select Soytone is a tan, free-flowing, homogeneous powder.

Bacto™ Soytone is a light to medium tan, free-flowing, homogeneous powder.

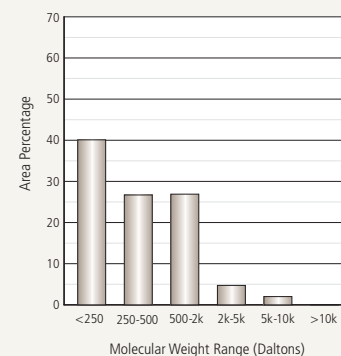
Growth Curve

1% Difco™ Select Soytone in 1.13% M9 Minimal Salts + 0.4% Glucose, BioScreen C



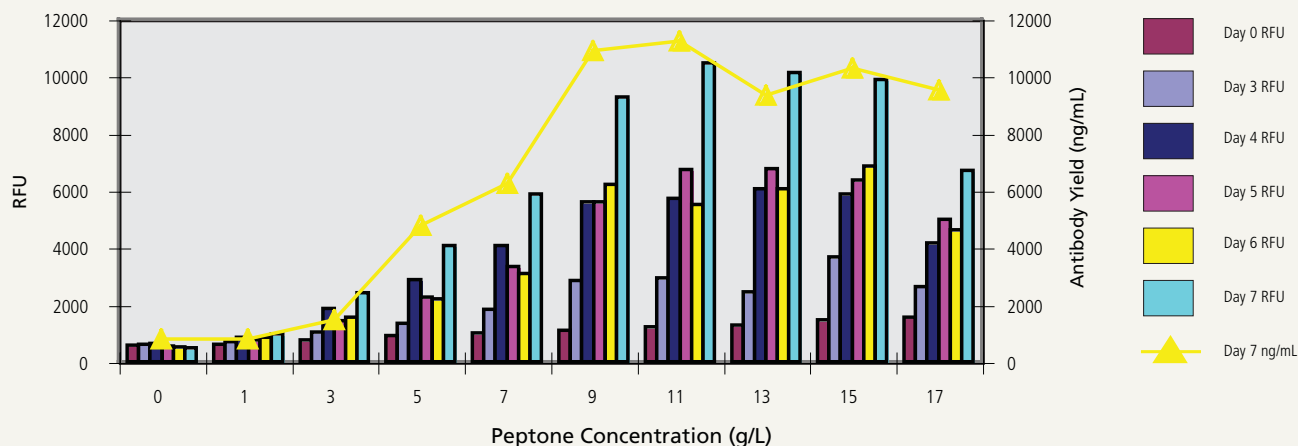
Molecular Weight

Difco™ Select Soytone



Titration

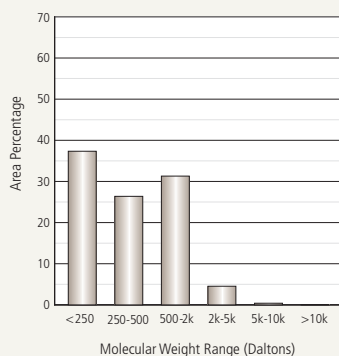
Select Soytone Titration
CHO Proliferation and Production Data





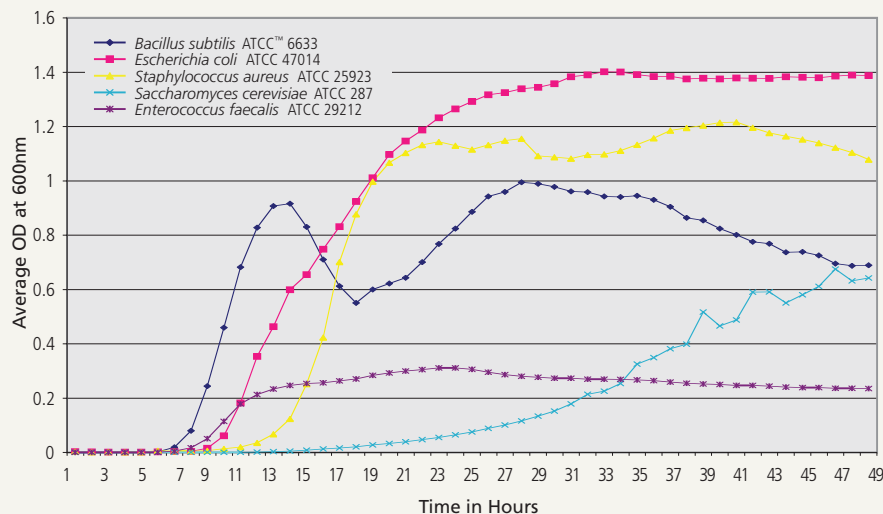
Molecular Weight

Bacto™ Soytone



Growth Curve

1% Bacto Soytone in 1.13% M9 Minimal Salts + 0.4% Glucose, BioScreen C



Availability

Product Description	Cat. No.	Qty.
BBL™ Phytone™ Peptone	211906	454 g
BBL™ Phytone™ Peptone	298147	5 lb (2.3 kg)
BBL™ Phytone™ Peptone	292450	10 kg
Difco™ Select Phytone™ UF.	210931	500 g
Difco™ Select Phytone™ UF.	210936	10 kg
Difco™ Select Soytone	212488	500 g
Difco™ Select Soytone	212489	10 kg
Bacto™ Soytone	243620	500 g
Bacto™ Soytone	243610	10 kg

References

- Power (ed.). 1988. Manual of BBL™ products and laboratory procedures, 6th ed. Becton Dickinson Microbiology Systems, Cockeysville, Md.
- Chou and Cheng. 2000. Recovery of low-temperature stressed *E. coli* O157:H7 and its susceptibility to crystal violet, bile salt, sodium chloride and ethanol. *Int. J. Food Microbiol.* 61:127-136.
- Kwon, Lee, Lee, Chang, Keun and Chang. 2000. Production of lactic acid by *Lactobacillus rhamnosus* with vitamin-supplemented soybean hydrolysate. *Enzyme Microb. Technol.* 26:209-215.