

## 66315 Peptone Testkit

### Application:

Many biotechnologists and microbiologists are confronted with the question of what is the best peptide source for their microorganisms. This Kit helps one to find the best peptide source for your organisms. There are so many different choices of peptones and hydrolysates for a fermentation, a growth or for a diagnostic medium. With a peptide source specific fitted to your microorganisms, you can increase the yield and improve the reproducibility of your results. That means you save money and time!

### Product Description:

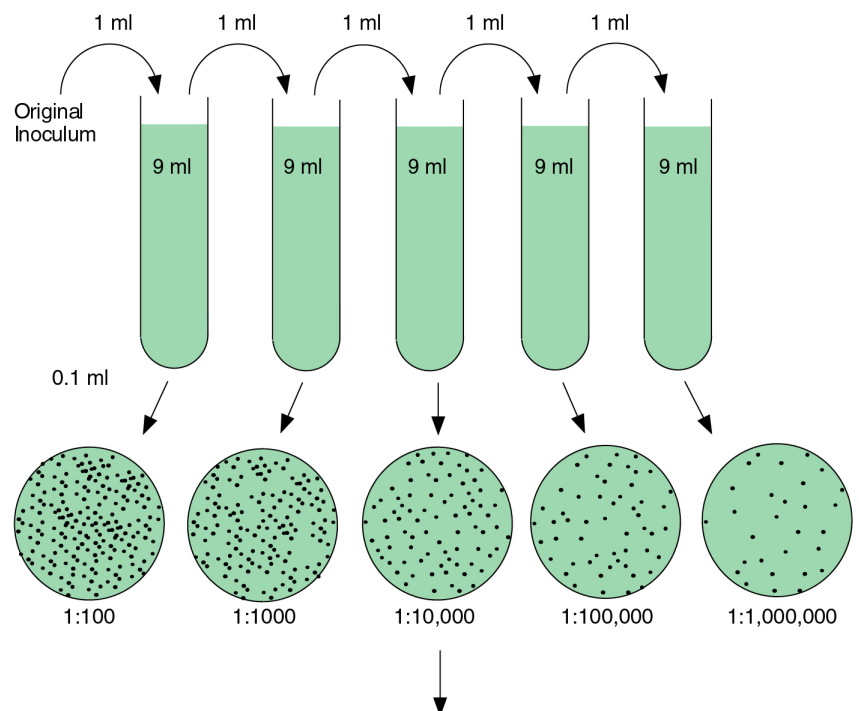
220 90	Casein Hydrolysate	7017 1	Peptone from casein, acid digest	8305 9	Peptone from potatoes
613 00	Lactalbumin Hydrolysate	7016 9	Peptone from casein, pancreatic digest	7017 8	Peptone from soybean meal, enzymatic digest
613 02	Lactalbumin Hydrolysate	7017 2	Peptone from casein, tryptic digest	S167 4	Soy protein acid hydrolysate
823 03	Peptone enzymatic digest from Casein	7017 6	Peptone from gelatine, pancreatic digest	8251 4	Protein Hydrolysate Amicase
709 51	Peptone enzymatic digest from Gelatine	7017 7	Peptone from lactalbumin, enzymatic digest, readily soluble	8245 0	Proteose-Peptone
879 72	Peptone enzymatic digest from soybean	7017 5	Peptone from meat, enzymatic digest	9503 9	Tryptone enzymatic digest from Casein
771 80	Peptone from animal proteins	8296 2	Peptone from meat, enzymatic digest	9373 3	Tryptose
701 73	Peptone from casein and other animal proteins	7017 4	Peptone from meat, peptic digest		

Quantity: 10 g of each peptide source

### Possible Directions:

*For Agar:* Prepare 100 ml of the wished medium with all the different peptide source. Use the common production and sterilizing procedure. Mix well before pouring into 4 to 5 plates.

Inoculate the plates with the test strains using the serial dilution method. Incubate them for the usual time (about 24-48 hours) at the characteristic temperature. Measure the colony sizes and calculate the average colony size.



$$\text{Number of bacteria/ml} = \text{number of colonies} \times \text{dilution of sample}$$

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### *Serial Dilution Method:*

The inoculum is diluted out in a series of dilution tubes which are plated out (see picture on the right).

*For Broth:* Prepare 100 ml of your wished medium with all the different peptide source. Use the common production and sterilizing procedure. Give the broth into a 250 ml Erlenmeyer flask. Inoculate the Erlenmeyer flask with a solution of the test strains. The absorbance (600 nm) of the inoculated broth should be lower than 0.1. Incubate the flask at the characteristic temperature and take samples for absorbance determination. Take every hour a sample until the first absorbances are higher than 0.1 but lower than 1.0. Then compare the absorbances of all the different broths.

### **Principle and Interpretation:**

The feature of a peptide source depends on the pH, solubility, elementary composition free amino acids and other issues. All these parameters are important to meet the growth requirement of the microorganisms. If you have the ideal peptide source the growth of the microorganisms is stronger than with an unsuited peptone or hydrolysate. That means for example the agar-plate with the biggest average colony size or the broth with the highest absorbance has the best growth condition.

### **Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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