MODIFIED TERRIFIC BROTH

#GCM08.0500

(for research only)

Formulation (g/L)

Tryptone:	12,00	Yeast Extract:	24,00
K_2HPO_4:	9,40	KH_2PO_4:	2,20
Final pH (25ºC):	7,2 ± 0,2		

Product: Dehydrated powder for the preparation of nutritionally rich liquid medium to be used with glycerol for the growth and maintenance of recombinant strains of *Escherichia coli* in molecular biology studies.

Quantity: 500g

Appearance: Beige powder. Autoclaved medium should be amber.

Storage: 2ºC – 25ºC. When not in use, keep container closed to avoid hydration.

Preparation:

Add 50,8g of the dehydrated medium to 900 ml of distilled water. Mix well and add 4 ml of glycerol. Adjust final volume to 1 liter. Dissolve by heating with regular agitation. Boil for 1 minute in order to dissolve completely. Dispense in appropriate containers and sterilize by autoclaving at 121ºC for 15 to 20 minutes. Store at 2ºC to 8ºC.

Supplements

Terrific Broth is a rich growth medium, which contains all the nutritional requirements for *E.coli* to support a high cell density and maintaining growth in the logarithmic phase for an extended period of time, resulting in larger yields of plasmid DNA and heterologous proteins. Tryptone and Yeast Extract are the sources for carbon, nitrogen, vitamins, minerals, and amino acids essential for growth, whereas the potassium phosphate buffer system acts to prevent cell death. Glycerol serves an additional source for carbon as well as a source for carbohydrates with the advantage over glucose that it is not fermented into acetic acid. Moreover, in many protein expression experiments, glucose acts as a repressor. Other supplements, including antibiotics, can be added. As many are heat-sensitive, they cannot be autoclaved and should be filter-sterilized prior to adding to the medium it has cooled down.

Quality Control

Each lot is tested by inoculating freshly prepared medium with a single colony of *Escherichia coli* ATCC 23724 and observation after incubation at 35 ± 2ºC for 18 – 24h

Bibliography

Sambrook, Fritsch and Maniatis (1989) In Molecular cloning: a laboratory manual, 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY.

ORDERING INFORMATION – Culture Media and Components

Reference #	Product Name	Quantity
GCM01.0500	LB Agar (Lennox)	500 g
GCM02.0500	LB Broth (Lennox)	500 g
GCM03.0500	Luria Agar (Miller´s LB Agar)	500 g
GCM04.0500	Luria Broth (Miller´s LB Broth)	500 g
GCM05.0500	Luria Agar (Miller´s Modification)	500 g
GCM06.0500	Luria Broth (Miller´s Modification)	500 g
GCM07.0500	Terrific Broth	500 g
GCM08.0500	Modified Terrific Broth	500 g
GCM09.0500	2xYT Medium	500 g
GCM10.0500	2xYT Agar	500 g
GCM11.0500	SOB Medium	500 g
GCM12.0500	SOC Medium	500 g
GCM13.0500	YPD Broth	500 g
GCM14.0500	YPD Agar	500 g
GCM15.0500	YNB w/o amino acids and w/o ammonium sulfate	500 g
GCM16.0500	YNB w/o amino acids with ammonium sulfate	500 g
GCM17.0500	LB Broth (Auto Induction Medium)	500 g
GCM18.0500	2xYT Broth (Auto Induction Medium)	500 g
GCM19.0500	Terrific Broth (Auto Induction Medium)	500 g
GCM20.0500	Super Broth (Auto Induction Medium)	500 g
GCM21.0500	Peptone	500 g
GCM22.0500	Bacterial Peptone	500 g
GCM23.0500	Tryptone	500 g
GCM24.0500	Yeast Extract	500 g
GCM25.0500	Bacteriological Agar	500 g
GCM26.0500	Dextrose	500 g
GCM27.0500	Sucrose	500 g

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