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Instructions for Use

TERRIFIC BROTH WITH GLYCEROL POWDER

Cat. no. C8150	CulGenex™ Terrific Broth with Glycerol, 2L	80gm
Cat. no. C8151	CulGenex™ Terrific Broth with Glycerol	500gm
Cat. no. C8152	CulGenex™ Terrific Broth with Glycerol	2kg
Cat. no. C8153	CulGenex™ Terrific Broth with Glycerol	10kg
Cat. no. C8159	CulGenex™ Terrific Broth with Glycerol, 0.5L	6 pouches/pack

INTENDED USE

Hardy Diagnostics CulGenex™ Terrific Broth with Glycerol is recommended for use in cultivating recombinant strains of *Escherichia coli* .

This product is not intended to be used for the diagnosis of human disease.

SUMMARY

Terrific Broth was developed by Tartoff and Hobbs in the attempt to increase the yield of plasmid DNA from transformed *Escherichia coli* strains. Terrific Broth has now become a popular choice in molecular biology laboratories as a medium for use in plasmid preparation. It is a highly enriched medium which produces higher yields of plasmids as a result of the increased concentration of peptone and yeast extract. Glycerol is also added to the formula as a carbohydrate source and unlike glucose, is not fermented to acetic acid. Peptone and yeast extract provide necessary nutrients and cofactors needed for the growth of recombinant strains of *Escherichia coli* . Yeast extract is added in a higher concentration to increase cell yields; and potassium phosphates are added to prevent cell death due to changes in pH.

FORMULA*

Gram weight per liter:	51.6gm/L
Yeast Extract	24.0gm
Tryptone	12.0gm
Dipotassium Phosphate	9.4gm
Glycerol	4.0gm

Monopotassium Phosphate	2.2gm

Final pH 7.2 +/- 0.2 at 25ºC.

* Adjusted and/or supplemented as required to meet performance criteria.

STORAGE AND SHELF LIFE

Store the sealed container(s) containing dehydrated culture medium at 2-30ºC. Dehydrated culture medium is very hygroscopic. Keep lid tightly sealed. Protect dehydrated culture media from moisture and light. The dehydrated culture media should be discarded if it is not free-flowing or if the color has changed from its original light tan.

Store the prepared media at 2-30ºC.

The expiration date on the product label applies to the product in its intact packaging when stored as directed. The product may be used and tested up to the expiration date on the product label and incubated for the recommended incubation times as stated below.

Refer to the document "Storage" for more information.

PRECAUTIONS

This product may contain components of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not guarantee the absence of transmissible pathogenic agents. Therefore, it is recommended that these products be treated as potentially infectious, and handle observing the usual universal blood precautions. Do not ingest, inhale, or allow to come into contact with skin.

This product is for laboratory use only. It is to be used only by adequately trained and qualified laboratory personnel. Observe approved biohazard precautions and aseptic techniques. All laboratory specimens should be considered infectious and handled according to "standard precautions." Refer to the document "Guidelines for Isolation Precautions" from the Centers for Disease Control and Prevention.

For additional information regarding specific precautions for the prevention of the transmission of all infectious agents from laboratory instruments and materials, and for recommendations for the management of exposure to infectious disease, refer to CLSI document M29: *Protection of Laboratory Workers from Occupationally Acquired Infections.*

Sterilize all biohazard waste before disposal.

Refer to the document "Precautions When Using Media" for more information.

METHOD OF PREPARATION FOR DEHYDRATED CULTURE MEDIA

1. Suspend 51.6gm of the dehydrated culture media in 1 liter of distilled or deionized water (25.8gm per 500ml).

2. Heat as necessary to dissolve completely.

3. Autoclave at 121ºC. for 15 minutes.

PROCEDURE

Refer to appropriate references for recommended test procedures.[1,2,5,6]

INTERPRETATION OF RESULTS

Growth is observed by turbidity and/or cloudiness of the broth medium.

LIMITATIONS

Refer to the document "Limitations of Procedures and Warranty" for more information.

MATERIALS REQUIRED BUT NOT PROVIDED

Standard microbiological supplies and equipment such as autoclave, incinerators, and incubators, etc., are not provided.

QUALITY CONTROL

Hardy Diagnostics tests each lot of commercially manufactured media using appropriate quality control microorganisms and quality specifications as outlined on the Certificates of Analysis (CofA).

Test Organisms	Inoculation Method*	Incubation			Results
		Time	Temperature	Atmosphere	
Escherichia coli ATCC® 25922	A	24-48hr	35°C	Aerobic	Growth

* Refer to the document "Inoculation Procedures for Media QC" for more information.

USER QUALITY CONTROL

End users of commercially prepared culture media should perform QC testing in accordance with applicable government regulatory agencies, and in compliance with accreditation requirements. Hardy Diagnostics recommends end users check for signs of contamination and deterioration and, if dictated by laboratory quality control procedures or regulation, perform quality control testing to demonstrate growth or a positive reaction and to demonstrate inhibition or a negative reaction, if applicable. Hardy Diagnostics quality control testing is documented on the certificate of analysis (CofA) available from Hardy Diagnostics Certificate of Analysis website. Also refer to the document "Finished Product Quality Control Procedures," and the CLSI document M22-A3 *Quality Assurance for Commercially Prepared Microbiological Culture Media* for more information on the appropriate QC procedures. See the references below.

PHYSICAL APPEARANCE

CulGenex™ Terrific Broth with Glycerol powder should appear homogeneous, free-flowing, and very light to light tan in color. The prepared media should appear clear, and light to medium amber in color.

REFERENCES

1. Ausubel, F.M., R. Brent, R.E. Kingston, D.D. Moore, J.G. Seidman, J.A. Smith, and K. Struhl. 1994. *Current Protocols in Molecular Biology* . Greene Publishing Associates, Inc., Brooklyn, NY.

2. Lennox, E.S. 1955. *Transduction of Linked Genetic Characters of the Host by Bacteriophage P1* . Virology; 1:190-206.

3. Luria, S.E., and J.W. Burrows. 1955. *Hybridization Between Escherichia coli and Shigella* . J. Bacteriol.; 74:461-

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4. Luria, S.E., J.N. Adams, and R.C. Ting. 1960. *Transduction of Lactose-Utilizing Ability Among Strains of E. coli and S. dysenteriae and the Properties of the Transducing Phage Particles* . Virology; 12:348-390.

5. Miller, J.H. 1972. *Experiments in Molecular Genetics* . Cold Spring Harbor Laboratory. Cold Spring Harbor, New York.

6. Sambrook and Russell. 2001. *Molecular Cloning: A Laboratory Manual* , 3rd ed. Cold Spring Harbor Laboratory. Cold Spring Harbor, New York.

7. Tartoff, K.D., and C.A. Hobbs. 1987. *Improved Media for Growing Plasmid and Cosmid Clones.* Bethseda Research Laboratories Focus; 9:12.

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The Hardy Diagnostics manufacturing facility and quality management system is certified to ISO 13485.

HDQA 2207C [D]