

Certificate of Analysis

Product: EMM

Catalog No.: 4110-0X2; 4110-012; 4110-075; 4110-022; 4110-095; 4110-032; 4110-042

Lot No.: 11169

EMM, Certified Thiamine (vitamin B1) free.

Edinburgh Minimal Medium, Defined Medium for growth of fission yeast *S. Pombe*.

Catalog No. and Size:

Catalog No.	and	Size:
Powder		Pouchs
4110-012		4110-075
4110-022		4110-095
4110-032		
4110-042		

Formulation and Molecular Biological Specifications of Components

Contents Per Liter: 3 g potassium hydrogen phthalate (14.7mM), 2.2g Na₂HPO₄ (15.5mM), 5g NH₄Cl (93.5mM), 20g glucose (111mM), 1.05g MgCl₂·6H₂O (5.2mM), 14.7µg CaCl₂·2H₂O (99.8µM), 1g KCl (13.4mM), 0.04g Na₂SO₄ (0.28mM), 1mg pantothenic acid (4.2µM), 10mg nicotinic acid (81.2µM), 10mg *myo*-inositol (55.5µM), 10µg biotin (0.82µM), 0.5 mg boric acid (8.9µM), 0.4mg MnSO₄ (2.4µM), 0.4mg ZnSO₄·7H₂O (1.4µM), 0.2mg FeCl₂·6H₂O (0.7µM), 40µg molybdic acid (0.25µM), 0.1mg KI (0.6µM), 40µg CuSO₄·5H₂O (0.016µM), 1mg citric acid (4.76µM).

Reference: Mitchison, J.M. *Methods Cell Physiol.* 4:131-165 (1970).

Recommended Use:

EMM medium is a minimal defined liquid medium for the growth of *Schizosaccharomyces pombe*. Add 1.7-2% agar for culture plates.

Storage:

Store medium powder at ambient temperature in subdued light. Medium is hygroscopic, therefore minimize exposure to air to prolong storage of powder. Store sterile agar medium at 4°C.

Shelf Life:

Storage life in closed container: **4 years.**

Warning:

Irritating dust. Wear dust mask to avoid breathing dust. Weigh carefully with spatula to minimize airborne particles.

Quality Assurance Information

Media Preparation:

Reagents are tested and chosen for their ability to promote optimum growth of *S. pombe* when combined in EMM medium formulations. Chosen reagents are combined in the proper proportions according to the formula listed above and milled to a powder of consistent sized particles. A sample of the milled formulation was used to prepare liquid and agar medium by adding 32g powder per liter of purified water. For agar medium 17g/L of agar-Y was added. The combinations were mixed by hand for about 1 minute to dissolve the glucose (to minimize caramelization and darkening of medium during autoclaving) and 0.25g/L of a mixture of adenine, his, leu, ura, and lys (Sp supplements, Qbiogene Cat.# 4104-012) was added prior to autoclaving at 121°C for 15 minutes. Autoclaving at hotter temperatures or for longer periods will result in darkening of the sterile medium, (a darker color does not noticeably affect growth of cells, only the appearance of the sterile medium). Agar plates were poured when the medium had cooled to 50°C in a water bath.

Quality Control Assay:

pH and Clarity Test

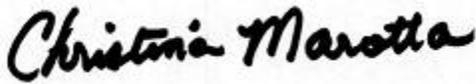
Results of Quality Control Assay:

pH = 6.12 @ 23C pH Range: 5.4 - 6.4

Media was a clear, pale yellow, particulate-free solution.

Conclusions:

These lots of EMM Minimal Defined Medium are approved for product sales.



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Technical Director

MSDS available online at www.mpbio.com