

L5910 Lysine Medium

Lysine Medium is used for isolation and enumeration of wild yeasts in pitching yeasts.

Composition:

Ingredients	Grams/Litre
Dextrose	44.5
Monopotassium Phosphate	1.78
Magnesium Sulfate	0.89
Calcium Chloride	0.178
Sodium Chloride	0.089
Adenine	0.00178
DL-Methionine	0.000891
L-Histidine	0.000891
DL-Tryptophan	0.000891
Boric Acid	0.0000089
Zinc Sulfate	0.0000356
Ammonium Molybdate	0.0000178
Manganese Sulfate	0.0000356
Ferrous Sulfate	0.0002225
L-Lysine	1.0
Inositol	0.02
Calcium Pantothenate	0.002
Aneurine	0.0004
Pyridoxine	0.0004
p-Amino Benzoic Acid	0.0002
Nicotinic Acid	0.0004
Riboflavin	0.0002
Biotin	0.000002
Folic Acid	0.000001
Agar	17.8

Final pH 5.0 +/- 0.2 at 25°C

Store prepared media below 8°C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25°C.

Appearance: White colored, homogeneous, free flowing powder.

Gelling: Firm

Color and Clarity: Colorless, clear to slightly opalescent gel forms in petri plates.

Directions:

Suspend 6.6 g of Lysine Medium in 100 ml of distilled water containing 0.84 ml of potassium lactate solution ~60% (Fluka 60389). Boil to dissolve the medium completely. Cool to 50 °C. Adjust the pH to 5.0 with a 10% solution of Lactic Acid (Cat. No. 69778) and pour into sterile petri plates.

Note:

The degree of contamination is expressed as the number of wild yeast cells per million cells of the original inoculum. The number of cells in the inoculum is important as a small number (100-1000) grow to a limited extent while 10'000 brewing yeast cells provide a direct measure of contaminant wild yeasts (3).



Principle and Interpretation:

Morris and Eddy (1) described this medium for the isolation and enumeration of wild yeasts in pitching yeast. Walters and Thiselton (2) used a liquid synthetic medium containing lysine as sole nitrogen source and found that many yeasts utilise lysine. Later on, Morris and Eddy (1) described solid lysine medium.

Cultural characteristics after 7 days at 25°C.

Organisms (ATCC)	Growth
<i>Pichia fermentans</i> (10651)	+++

References:

1. Morris, E. O., et al., J. Inst. Brew. 63, 34 (1957).
2. Walters, L. S., et al., J. Inst. Brew. 59, 401 (1953).
3. Fowell, R. R., J. Appl. Bact. 28, 373 (1965).
4. American Type Culture Collection, Manassas, VA. U.S.A

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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