SIGMA-ALDRICH®
sigma-aldrich.com
3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

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).

3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

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 yeast utilise lysine. Later on Morris and Eddy (1) described solid lysine medium.

Cultural characteristics after 7 days at 25°C.

Organisms (ATCC)	Growth
Pichia fermentans (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