

# Leuconostoc Agar



Medium used for the isolation and cultivation of *Leuconostoc* spp.

## • CONTENTS (Liter)

Tryptone	10.0 g
Gelatin	2.5 g
Yeast Extract	5.0 g
Dextrose	105.0 g
Sodium Citrate	1.0 g
Sodium Azide	0.075 g
Agar	15.0 g
Final pH = 6.9 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 138.58 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

## • INTERPRETATION

*Leuconostoc* agar is a medium used for the isolation and cultivation of *Leuconostoc* spp. Tryptone, gelatin and yeast extract provide nitrogen, carbon, amino acids and vitamins. Dextrose is a carbohydrate source. Sodium chloride maintains osmotic balance. Sodium citrate provides the energy source for citrate utilizing organisms. Sodium azide inhibits Gram-negative bacteria and lactic streptococci coexisting with *Leuconostoc* spp. *Leuconostoc mesenteroides* and *Leuconostoc dextranicum* utilize the sucrose in the medium to synthesize polysaccharides which impart a gelatinous appearance to the colonies. Agar is the solidifying agent.

## • TECHNIC

Inoculate the plate with spreading the specimen on surface of medium using a sterile loop. Incubate at 21 ± 2°C for 3 - 4 days. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: beige

### Prepared medium

Appearance: clear

Color: amber

Incubation conditions: 21 ± 2°C / 3 - 4 days

Microorganism	ATCC	Inoculate CFU	Growth
<i>Leuconostoc mesenteroides</i> subsp. <i>mesenteroides</i>	14935	50-100	good
<i>Leuconostoc mesenteroides</i> subsp. <i>cremoris</i>	19254	50-100	good
<i>Leuconostoc mesenteroides</i> subsp. <i>dextranicum</i>	19255	50-100	good
<i>Escherichia coli</i>	25922	≥10 <sup>3</sup>	inhibited
<i>Lactococcus lactis</i>	11454	≥10 <sup>3</sup>	inhibited

## • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2 - 8°C.

## • REFERENCES

1. Buttiaux, R., Beerens, H., et Tacquet. 1962. Manual des techniques bactériologiques. 4ème Ed. Flammarion, 455-458.
2. Devoyod, J.S., et Muller, M. 1969. La flore microbienne du fromage de Raquefort. Les streptocoques lactiques et les Leuconostoc. Le lait, 49: 369-399.
3. FIL-IDF 149A. Juillet 1997. Levains lactiques de cultures de bactéries lactiques. Norme de composition.
4. XP CEN ISO/TS 11133-2 (V 08-104-2). Janvier 2004. Microbiologie des aliments. Guide pour la préparation et la production des milieux de culture. Partie 2: Guide general pour les essais de performance des milieu de culture.

## • PACKAGE

Cat. No : MB-L2191 Leuconostoc Agar	500 G
--	-------