

BRETTANOMYCES AGAR

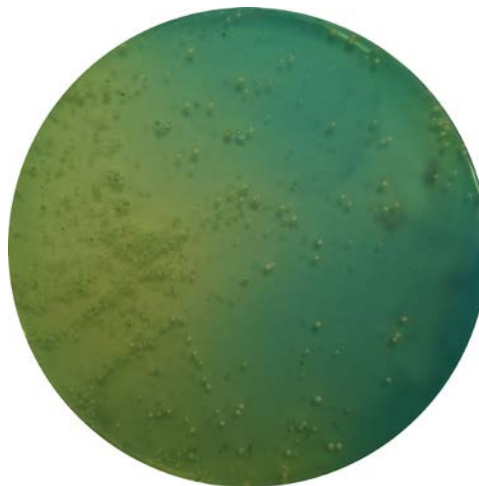
CAT N°: 2006

For the cultivation of *Brettanomyces*

FORMULA IN g/l

Dextrose	10.00	Bromocresol Green	0.022
Peptone	5.00	Thiamine	0.02
Malt Extract	3.00	Coumaric Acid	0.1
Yeast Extract	3.00	Cycloheximide	0.01
Yeast Nitrogen Base	3.00	Bacteriological Agar	20.00
Chloramphenicol	0.10		

Final pH 5.3 ± 0.2 at 25°C



Dekkera anomala
ATCC 10562

PREPARATION

Suspend 44.2 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Add 16 ml of ethanol and mix well. Boil for 10 minutes and pour into Petri plates. DO NOT AUTOCLAVE. The prepared medium should be stored at 8-15°C. The color of the prepared medium is green-bluish.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

USES

BRETTANOMYCES AGAR is a medium used for cultivation of *Brettanomyces* of wines.

Brettanomyces is a genus of yeast capable of growing in high concentrations of alcohol and of fermenting sugars that have not been used by *Saccharomyces cerevisiae* during fermentation. The presence of *Brettanomyces* is associated with the appearance of strange wine aromas due to the production of 4-ethyl guaiacol and 4-ethyl phenol. .

Brettanomyces is also called *Dekkera* (name given to species with sexual reproduction and therefore, formation of spores by meiosis). *Brettanomyces* is generally found in red wines in barrels or bulk storage, since acids necessary to form some of the indicative aromas are extracted from grape skins, but infections have also been found in Chardonnay and Sauvignon Blanc.

Dextrose is the fermentable carbohydrate providing carbon and energy. Peptone and Malt Extract provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group. Thiamine is a growth factor. Selective agents are added to improve *Brettanomyces* recovery through the inhibition of common contaminants as *Saccharomyces cerevisiae*.

Inoculate and incubate at a temperature of 25-30°C and observed after 7 days.

Biochemical characteristics of species found in wines.

Microorganisms	Lactose fermentation	Succinate assimilation	Nitrate assimilation
<i>Dekkera anomala</i>	+	+	+

<i>Dekkera bruxelensis</i>	-	-	+
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MICROBIOLOGICAL TEST

The following results were obtained from type cultures in the performance of the medium after incubation at a temperature of 25-30°C and observed after 7 days.

Microorganisms	Growth
<i>Dekkera anomala</i> ATCC 10562	Good
<i>Dekkera bruxelensis</i> ATCC 36234	Good
<i>Escherichia coli</i> ATCC 25922	Inhibited
<i>Salmonella typhimurium</i> ATCC 14028	Inhibited
<i>Enterococcus faecalis</i> ATCC 29212	Inhibited
<i>Saccharomyces cerevisiae</i> ATCC 9763	Inhibited

BIBLIOGRAPHY

Winemaking update. *Brettanomyces* /dekkera. Control y detección en bodegas.

Wine Microbiologists practical application and procedure

Silva, P., H. Cardoso, and H. Gerós. 2004. Studies on the wine spoilage capacity of *Brettanomyces*/*Dekkera* spp. *Am. J. Enol. Vitic.* 55: 65–72.

STORAGE

Once opened keep powdered medium closed to avoid hydration.

