M8802 Malonate Broth

Malonate Broth is recommended for the differentiation of *Enterobacter* and *Escherichia.*

Composition:

Ingredients	Grams/Litre
Ammonium Sulfate	2.0
Dipotassium Phosphate	0.6
Monopotassium phosphate	0.4
Sodium Chloride	2.0
Sodium Malonate	3.0
Bromo Thymol Blue	0.025
Final pH 6.7 +/- 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: Light green coloured, homogeneous, free flowing powder.
Colour and Clarity: Bluish green coloured, clear solution without any precipitate.

Directions:
Suspend 8 g of Malonate Broth in 1000 ml of distilled water. Dispense and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. Avoid the addition of carbon and nitrogen from other sources.

Principle and Interpretation:
Organisms which simultaneously utilize sodium malonate as carbon source and ammonium sulfate as nitrogen source produce an alkaline solution due to the formation of sodium hydroxide. This is indicated by a colour change of bromo thymol blue from green to blue. The alkaline solution is buffered by phosphates.

Cultural characteristics after 18-48 hours at 35-37°C.

Organisms (ATCC)	Growth	Malonate Utilization
Enterobacter aerogenes (13048)	+++	+
Klebsiella pneumoniae (13883)	+++	+
Salmonella arizonae (13314)	+++	+
Salmonella typhimurium (14028)	+	-
Escherichia coli (25922)	+/-	-

References:
1. MacFaddin, J., (1985). Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria. Vol. 1. Williams and Wilkins. Baltimore, Maryland.
2. American Type Culture Collection, Manassas, Va., U.S.A.

Storage/Stability
Store the product at 20–25 °C.

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.