

F5422 Folic Acid Assay Medium

Folic Acid Assay Medium is recommended for the microbiological assay of folic acid using *Streptococcus faecium* (ATCC 8043) as the test organism.

Composition:

| Ingredients | Grams/Litre |
|---------------------------------------|-------------|
| Casein Acid Hydrolysate, Vitamin Free | 12.0 |
| Dextrose | 40.0 |
| Sodium citrate | 20.0 |
| L-Cystine | 0.2 |
| DL-Tryptophan | 0.2 |
| Adenine Sulphate | 0.02 |
| Guanine Hydrochloride | 0.02 |
| Uracil | 0.02 |
| Thiamine Hydrochloride | 0.002 |
| Pyridoxine Hydrochloride | 0.004 |
| Riboflavin | 0.002 |
| Niacin | 0.002 |
| p-Amino Benzoic Acid (PABA) | 0.0002 |
| Biotin | 0.0000008 |
| Calcium Pantothenate | 0.0004 |
| Dipotassium Phosphate | 1.0 |
| Monopotassium Phosphate | 1.0 |
| Magnesium Sulphate | 0.4 |
| Sodium Chloride | 0.02 |
| Ferrous Sulphate | 0.02 |
| Manganese Sulphate | 0.02 |
| Final pH 6.8 +/- 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 4°C.

Appearance: Off white colored, homogeneous, free flowing powder.

Color and Clarity: Light amber colored, clear solution which may have a slight precipitate.

Directions:

Suspend 7.5 g of Folic Acid Assay Medium in 100 ml of distilled water. Boil to dissolve the medium completely. Mix well to distribute the slight precipitate evenly. For assay, dispense 5 ml of medium per assay tube, and add 5 ml of distilled water to each tube. Sterilize by autoclaving at 15 lbs. pressure (121°C) for 10 minutes. Cool immediately.

Principle and Interpretation:

This medium is recommended by the Association of Official Analytical Chemists (AOAC) for the determination of folic acid content of products. The medium contains all of the necessary nutrients for the growth of *Streptococcus faecium* except folic acid. Folic acid is required for the growth of *Streptococcus faecium*.



Cultural characteristics after 16-18 hours at 37°C.

| Organisms (ATCC) | Growth |
|-------------------------------------|---|
| <i>Streptococcus faecium</i> (8043) | Increase in growth with increasing concentrations of folic acid (0, 4, 6, 8, 10 ng/tube; turbidimetric readings at 620 nm). |

References:

1. Official Methods of Analysis of AOAC International, (1995) 16th Edition. Vol. II. Association of Analytical Chemists, Arlington, Virginia.

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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