

BIOMARK Laboratories-INDIA

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TECHNICAL SHEET

BS016	VITAMIN B₁₂ ASSAY MEDIUM
Formula	
Ingredients :	gms/lit.
Casein acid hydrolysate	15.00
Dextrose	40.00
Asparagine	0.20
Sodium acetate	20.00
Ascorbic acid	4.00
L-cystine	0.40
DL-tryptophan	0.40
Adenine sulphate	0.02
Guanine hydrochloride	0.02
Uracil	0.02
Xanthine	0.02
Riboflavin (vitamin B2)	0.001
Thiamine hydrochloride	0.001
Biotin	0.00001
Niacin	0.002
p-Amino benzoic acid	0.002
Calcium pantothenate	0.001
Pyridoxine hydrochloride	0.004
Pyridoxal hydrochloride	0.004
Pyridoxamine hydrochloride	0.0008
Folic acid	0.0002
Monopotassium phosphate	1.00
Dipotassium phosphate	1.00
Magnesium sulphate	0.40
Sodium chloride	0.02
Ferrous sulphate	0.02
Manganese sulphate	0.02
Polysorbate 80	2.00
Final pH (at 25°C) : 6.1 ± 0.2	
Directions :	
Suspend 8.5 gms. in 100ml. distilled water. Boil to dissolve the medium completely. Mix well to distribute the slight precipitate evenly. For the assay, dispense 5 ml. medium to each assay tube (containing increasing amounts of standard of the unknown). Total volume of 10 ml per tube is adjusted by addition of distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 5 minutes. Cool the medium immediately. Generally satisfactory results are obtained with Vitamin B ₁₂ (cyanocobalamin) at levels 0, 0.025, 0.05, 0.075, 0.1, 0.125, 0.15, 0.2 ng per assay tube (10ml.)	
Principle :	
Vitamin B ₁₂ Assay Medium is a Vitamin B ₁₂ free medium containing all other vitamins and nutrients essential for the growth of <i>Lactobacillus leichmannii</i> ATCC 7830. It is recommended by USP and AOAC, using <i>Lactobacillus leichmannii</i> ATCC 7830 as the test organism. To obtain a standard curve, Cyanocobalamin is added in particular increasing concentrations giving a growth response that can be turbidimetrically or acidimetrically measured.	
QC Tests – (I) Dehydrated Medium	
Colour :	Cream to Yellow
Appearance :	Powder having tendency to form soft lumps, which can be easily broken down to powder form.
(II) Rehydrated medium	
pH (post autoclaving/heating) :	6.1 ± 0.2
Colour (post autoclaving/heating) :	Light amber
Clarity (post autoclaving/heating) :	Clear

Refer disclaimer Overleaf

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(III)Q.C. Test Microbiological					
Microbiological assay of Vitamin B ₁₂ is carried out using Lactobacillus leichmanni ATCC 7830. After 18 - 24 hrs. incubation at 35°C, good growth is obtained. Gradual increase in growth with increasing USP Cyanocobalamin reference standard levels of 0.0, 0.025, 0.050, 0.075, 0.1, 0.125, 0.150 ng per assay tube is recorded as equivalent increase in absorbance at 620 nm.					
Precautions :	1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.				
Use :	For microbiological assay of vitamin B12 using Lactobacillus leichmanni ATCC 7830.				
Storage :	Dehydrated medium- Between 2- 8°C, preferably in desiccator and use freshly prepared medium.				
Packing :	500 gm. Bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
BS016	85 g/l	5.88L	6.1 ± 0.2	NIL	121°C/15 MIN

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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