

<b>B1287I</b>	<b>MULLER KAUFFMAN TETRATHIONATE BROTH BASE</b>	
<b>Formula</b>		
<b>Ingredients :</b>	<b>gms/lit.</b>	
<b>ISO Specification - Muller-Kauffmann tetrathionate-novobiocin (MKTTn) broth</b>		<b>B1287I-Muller-Kauffmann tetrathionate-novobiocin (MKTTn) broth</b>
<b>Ingredients</b>	<b>g / L</b>	<b>Ingredients</b>
Meat extract	4.300	Meat extract
Enzymatic digest of casein	8.600	Enzymatic digest of casein
Ox bile for bacteriological use	4.780	Bile salt
Sodium chloride (NaCl)	2.600	4.780
Calcium carbonate (CaCO <sub>3</sub> )	38.700	Sodium chloride (NaCl)
Sodium thiosulphate,	47.800	2.600
pentahydrate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 5H <sub>2</sub> O)		Calcium carbonate (CaCO <sub>3</sub> )
Brilliant green	0.0096	38.700
Final pH ( at 25°C)	8.0±0.2	Sodium thiosulphate,
<b>Supplements to be added after autoclaving</b>		pentahydrate (Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 5H <sub>2</sub> O)
Novobiocin sodium salt	0.040	Brilliant green
		0.0096
		Final pH ( at 25°C)
		8.0±0.2
		<b>Supplements to be added after autoclaving (BF141)</b>
		Novobiocin sodium salt
		0.040
<b>Iodine-iodide solution</b>	<b>20.00ml</b>	<b>Iodine-iodide solution</b>
Iodine	4.000	<b>20.00ml</b>
Potassium iodide (KI)	5.000	Iodine
		4.000
		Potassium iodide (KI)
		5.000
<b>Final pH ( at 25°C): 8.0±0.2</b>		
<b>Directions :</b>		
Suspend 89.42 gram (equivalent weight of dehydrated medium per litre) in 1000 ml purified/ distilled water. Heat the medium just to boiling. DO NOT AUTOCLAVE. Cool to 45-50°C and just before use aseptically add rehydrated contents of 1 vial of MKTT Novobiocin Supplement (BF141) and 20 ml of iodine-iodide solution (20 gram iodine and 25 gram potassium iodide in 100 ml sterile distilled water). Mix well to disperse calcium carbonate uniformly before dispensing in sterile tubes. Note: Due to presence of calcium carbonate, the prepared media forms opalescent solution with white precipitate.		
<b>Principle :</b>		
Casein enzymic hydrolysate and peptic digest of animal tissue as sources of carbon, nitrogen, vitamins and minerals. Bile and added brilliant green are selective agents, which inhibit gram-positive and other gram-negative organisms. Calcium carbonate is the buffer. Sodium chloride maintains osmotic equilibrium. Sodium thiosulphate is a source of sulfur. The tetrathionate (S <sub>4</sub> O <sub>6</sub> ) anions constitute the principle selective agent in these enrichment media. Organisms other than Salmonellae, such as Morganella morganii and some Enterobacteriaceae may grow in the medium. Therefore, confirmatory tests should be carried out on all presumptive Salmonella colonies that are recovered. Method		
<b>QC Tests – (I)Dehydrated Medium</b>		
	Colour :	Cream to greenish yellow
	Appearance :	Homogeneous Free Flowing powder
<b>(II)Rehydrated medium</b>		
	pH (post autoclaving/heating) :	8.0±0.2
	Colour (post autoclaving/heating) :	Light green coloured
	Clarity (post autoclaving/heating) :	opalescent solution forms with heavy white precipitate
<b>(III)Q.C. Test Microbiological</b>		
	Cultural characteristics observed after an incubation at 37°C for 18-48 hours with added 20ml iodine solution and MKTT Novobiocin Supplement (BF141), Further subculture is carried out on XLD Agar (B361)	

**TECHNICAL SHEET**

	<b>MICROORGANISM (ATCC )</b>	<b>Colour of colony on XLD Agar B361</b>			
	Salmonella Enteritidis ATCC 13076	red colonies w/ black centre			
	Salmonella Typhimurium ATCC 14028	red colonies w/ black centre			
	Escherichia coli ATCC 8739	partial inhibition			
	Escherichia coli ATCC 25922	partial inhibition			
	Enterococcus faecalis	inhibition - partial inhibition			
	Enterococcus faecalis ATCC 19433	inhibition - partial inhibition			
<b>Precautions</b>	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
<b>Limitations :</b>	1. The complete medium is unstable and should be used immediately. After incubation, it is permissible to store the selective enrichment medium at 5°C for a maximum of 72 h				
	2. Individual organisms differ in their growth requirement and may show variable growth patterns in the medium				
	3. Each lot of the medium has been tested for the organisms specified on the COA. It is recommended to users to validate the medium for any specific microorganism other than mentioned in the COA based on the user's unique requirement				
	4. Confirmatory tests should be carried out on all presumptive Salmonella colonies that are recovered				
<b>Use:</b>	Recommended for improved enrichment and isolation of Salmonellae. The composition and performance criteria of this media are as per the specification laid down in ISO 6579-1:2017 and ISO 11133:2014 (E) /Amd. : 2020				
<b>Storage :</b>	Dehydrated medium- below 30 ° C Prepared mediums– Between 2 to 8°C.				
<b>Packing :</b>	500 gm. bottle				
<b>Product profile:</b>	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
<b>B1287I</b>	89.42 g/l	5.591 L	8.2 ± 0.2	MKTT Novobiocin Supplement (BF141)	DO NOT AUTOCLAVE

**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. The information contained in this publication is based on our in-house studies and market performance and is to the best of our knowledge true and accurate. BIOMARK LABORATORIES reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.