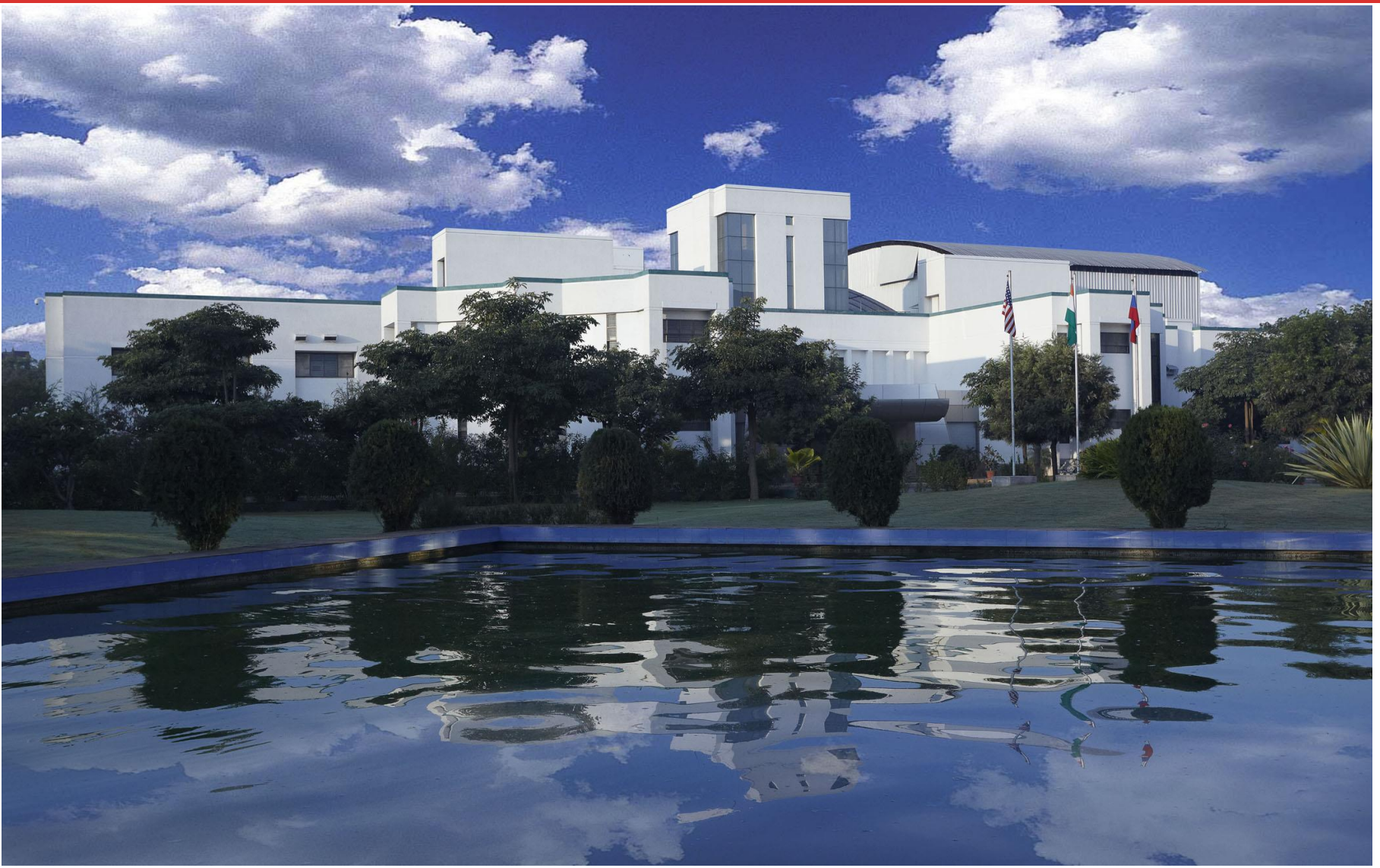
HIMEDIA®
For life is precious

Introduction



Production Building

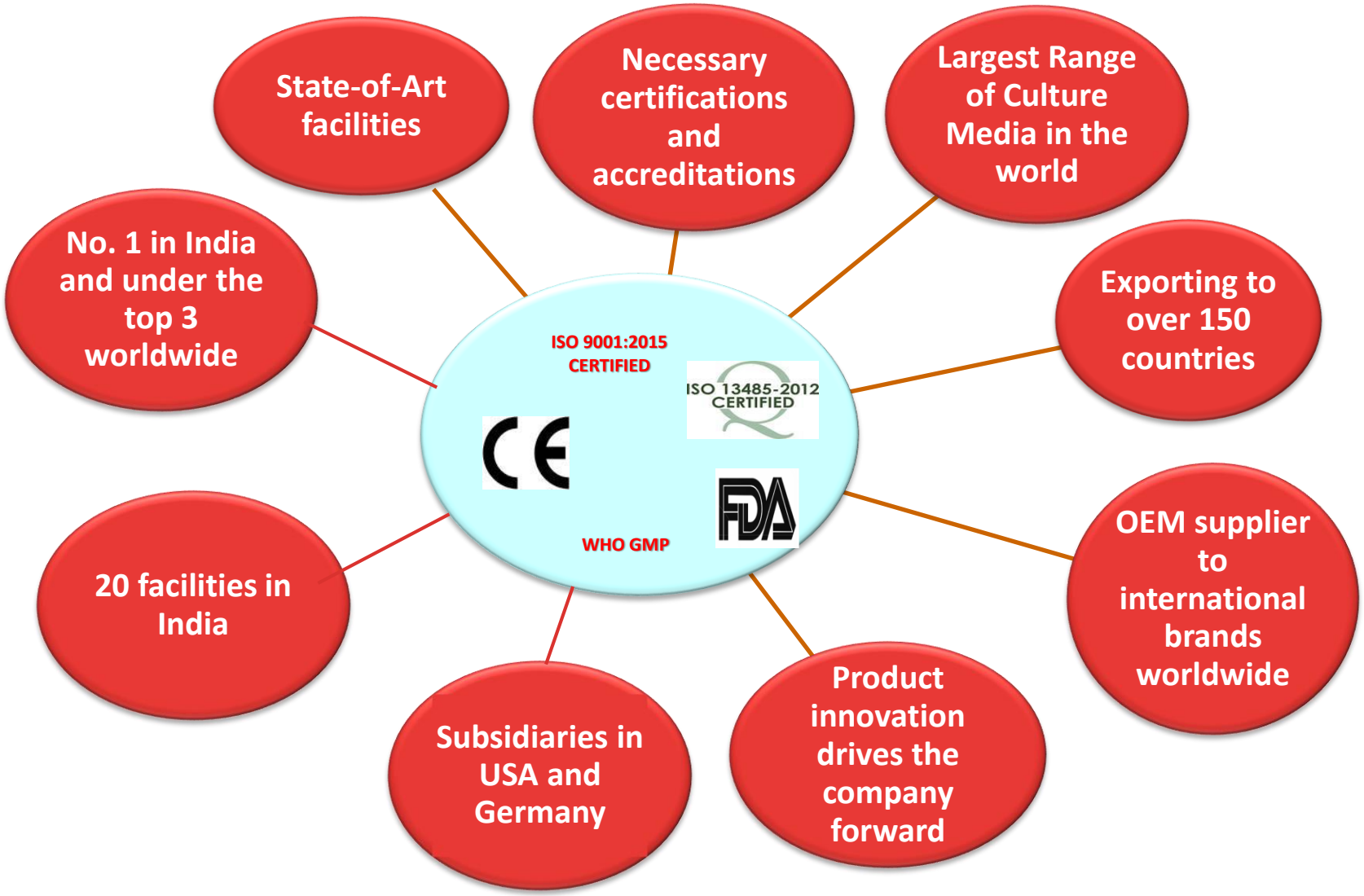
Introduction

R & D Building

Introduction

Production Equipment

Introduction



Company presentation

ISO 9001:2015 by IQNet, Quality Austria & Bureau of Indian Standards (BIS)

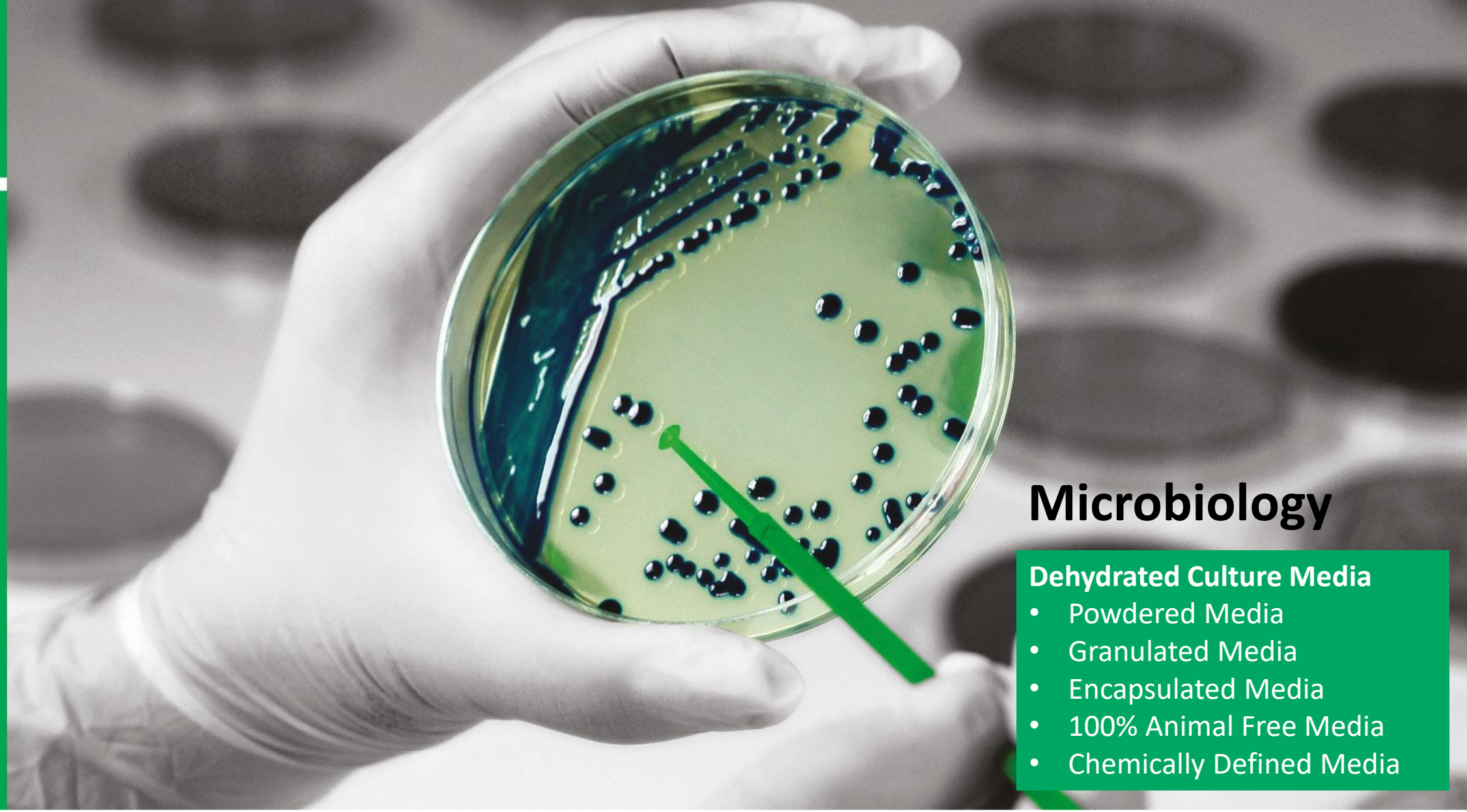
ISO 13485-2012 by IQNet, Quality Austria

WHO GMP Certification by Quality Austria

CE Marking

ISO/IEC 17025:2005 by NABL

TC-6395



Microbiology

Dehydrated Culture Media

- Powdered Media
- Granulated Media
- Encapsulated Media
- 100% Animal Free Media
- Chemically Defined Media

HiMedia Today

- Largest range of culture media in the world
- Export to over 150 countries
- OEM supplier to reputed international brands
- Joint label with VWR USA
- Revolutionizing the field of microbiology

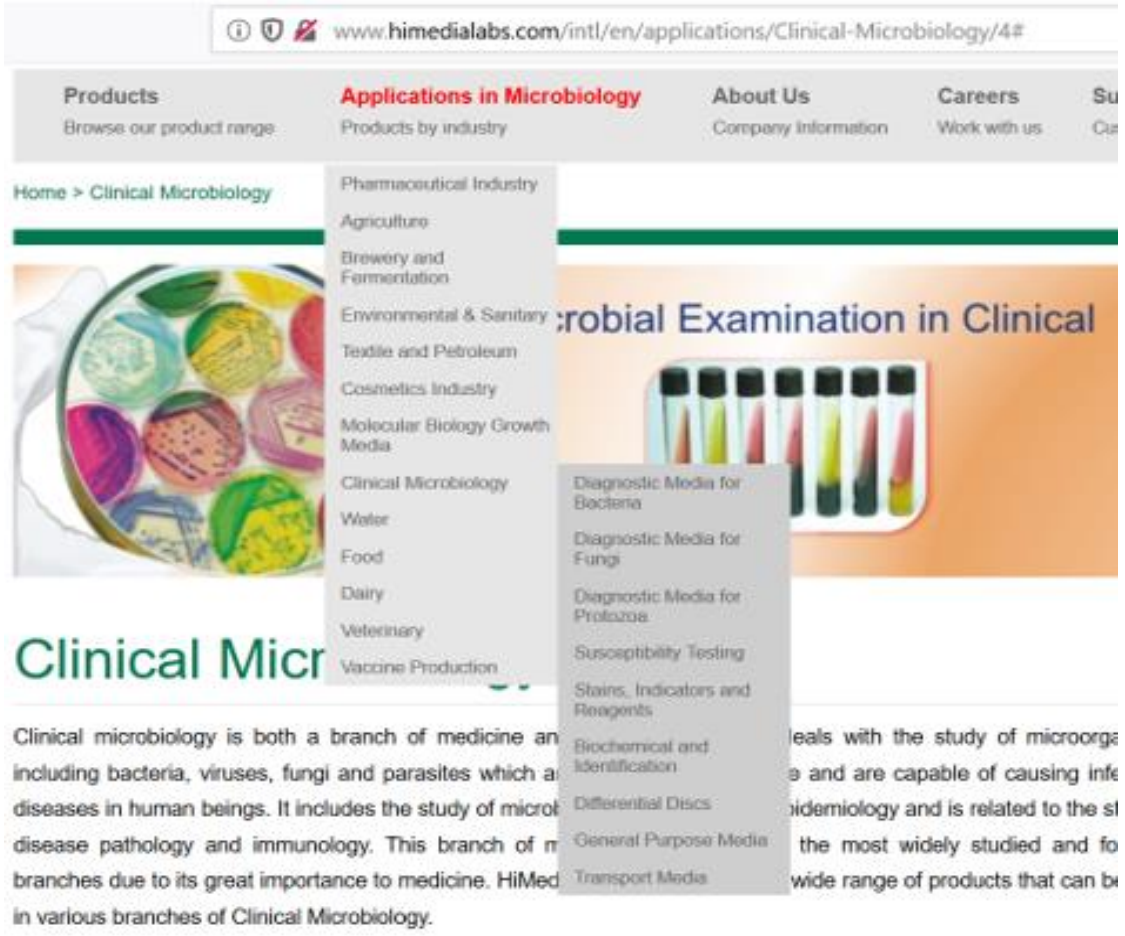
HiVeg™ Media

HiCynth™ Chemically Defined Microbiology Media

Microbiology

Microbiology Product Range

- Pharmaceutical Industry
- Agriculture
- Brewery & Fermentation
- Environmental & Sanitary
- Veterinary
- Cosmetics
- Clinical Microbiology
- Water, Food, Dairy



HIMEDIA®
For life is precious

Product categories

Dehydrated Culture Media (DCM)

- Animal Origin
- Vegetable Origin
- Chemical Origin

Supplements

- Growth and Selective Supplements
- Vitamin & Growth Factor Supplements
- Antibiotic Mixtures
- Egg yolk Supplements
- Serum & other derivatives

Granulated Media

- More than 150 granulated medias listed in catalogue
- Combines the high throughput technology of granulation and production of dehydrated culture media
- Has similar quality attributes with several added benefits in physical
- Safe for use and less dust formation
- Only two company has Granulated media (HiMedia and Merck)

Granulated Media (HiEncap)

- Customization of many medium in the granular form is possible
- Premeasured granulated media for 250 ml,500ml & 1000ml
- Just drop the capsule in water and autoclave

Microbiology

Media

HiVeg™

- Free of TSE/BSE risks
- Substituted with renewable sources of carbon & nitrogen
- Comparable productivity
- Lesser carbon foot print
- Ecofriendly
- More than1500 products

HiCynth™

- Chemically Defined Media
- Free of TSE/BSE and GMO risks
- Precise source of Carbon & Nitrogen
- Increased consistency
- Launched around 80 products
- Nutritional requirement of bacterial species can be accurately determined.

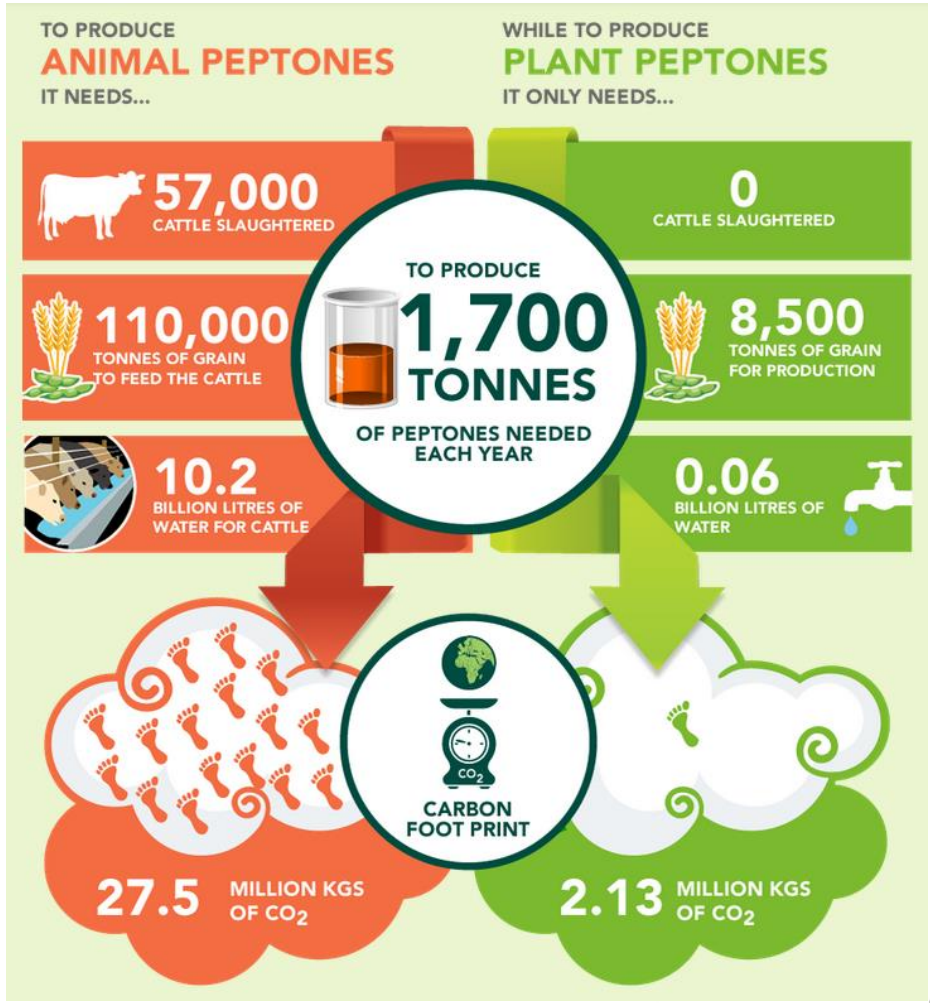
HiCrome™

- Largest range of more than 80 such media
- Easy identification & differentiation
- Saves time
- Designed for significant bacterial identification, yeast identification
- Differentiating within a group of organisms

Why HiVeg™ Culture Media?

Why vegetable instead of animal-based?

- Substituted with renewable sources of carbon & nitrogen
- Lesser carbon foot print
- Ecofriendly



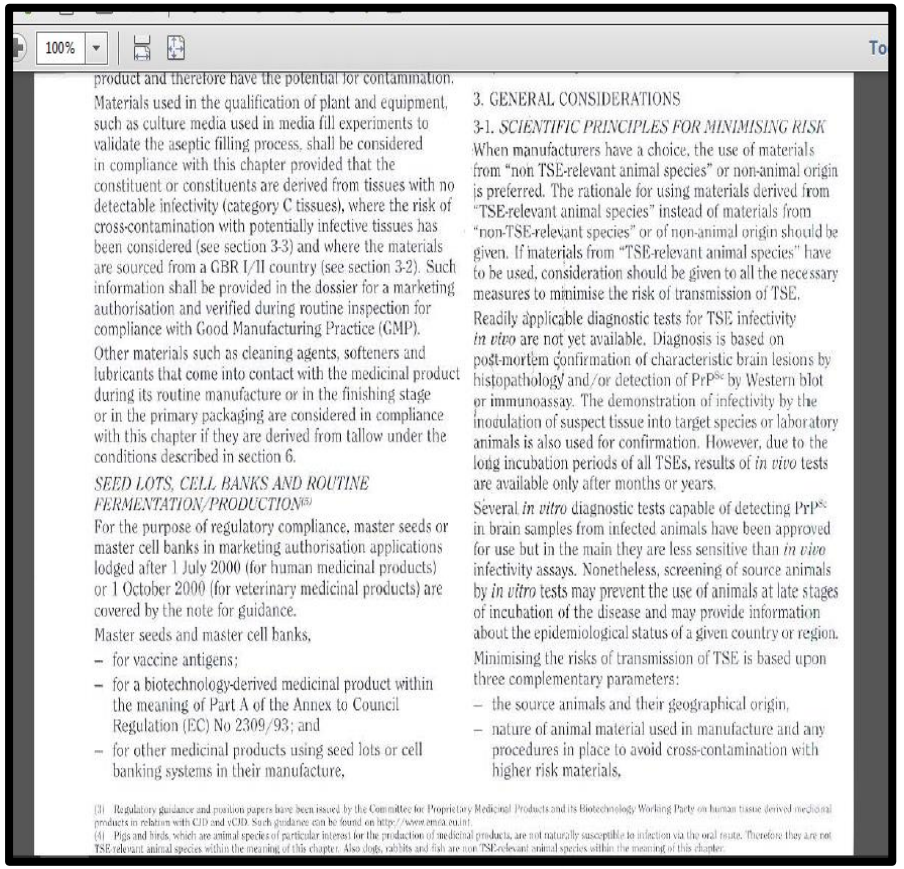
Microbiology

Why HiVeg Culture Media?

European Pharmacopoeia reference for use non-animal origin products

"When manufacturers have a choice, the use of materials from 'non TSE-relevant animal species' or non-animal origin is preferred"

Source EP 8.0,2014 <Section 5.2.8> Minimising the risk of transmitting TSE via medicinal products



product and therefore have the potential for contamination.

Materials used in the qualification of plant and equipment, such as culture media used in media fill experiments to validate the aseptic filling process, shall be considered in compliance with this chapter provided that the constituent or constituents are derived from tissues with no detectable infectivity (category C tissues), where the risk of cross-contamination with potentially infective tissues has been considered (see section 3-3) and where the materials are sourced from a GBR I/II country (see section 3-2). Such information shall be provided in the dossier for a marketing authorisation and verified during routine inspection for compliance with Good Manufacturing Practice (GMP).

Other materials such as cleaning agents, softeners and lubricants that come into contact with the medicinal product during its routine manufacture or in the finishing stage or in the primary packaging are considered in compliance with this chapter if they are derived from tallow under the conditions described in section 6.

SEED LOTS, CELL BANKS AND ROUTINE FERMENTATION/PRODUCTION[3]

For the purpose of regulatory compliance, master seeds or master cell banks in marketing authorisation applications lodged after 1 July 2000 (for human medicinal products) or 1 October 2000 (for veterinary medicinal products) are covered by the note for guidance.

Master seeds and master cell banks,

- for vaccine antigens;
- for a biotechnology-derived medicinal product within the meaning of Part A of the Annex to Council Regulation (EC) No 2309/93; and
- for other medicinal products using seed lots or cell banking systems in their manufacture,

3. GENERAL CONSIDERATIONS

3-1. *SCIENTIFIC PRINCIPLES FOR MINIMISING RISK*

When manufacturers have a choice, the use of materials from "non TSE-relevant animal species" or non-animal origin is preferred. The rationale for using materials derived from "TSE-relevant animal species" instead of materials from "non-TSE-relevant species" or of non-animal origin should be given. If materials from "TSE-relevant animal species" have to be used, consideration should be given to all the necessary measures to minimise the risk of transmission of TSE.

Readily applicable diagnostic tests for TSE infectivity *in vivo* are not yet available. Diagnosis is based on post-mortem confirmation of characteristic brain lesions by histopathology and/or detection of PrP^{Sc} by Western blot or immunoassay. The demonstration of infectivity by the inoculation of suspect tissue into target species or laboratory animals is also used for confirmation. However, due to the long incubation periods of all TSEs, results of *in vivo* tests are available only after months or years.

Several *in vitro* diagnostic tests capable of detecting PrP^{Sc} in brain samples from infected animals have been approved for use but in the main they are less sensitive than *in vivo* infectivity assays. Nonetheless, screening of source animals by *in vitro* tests may prevent the use of animals at late stages of incubation of the disease and may provide information about the epidemiological status of a given country or region.

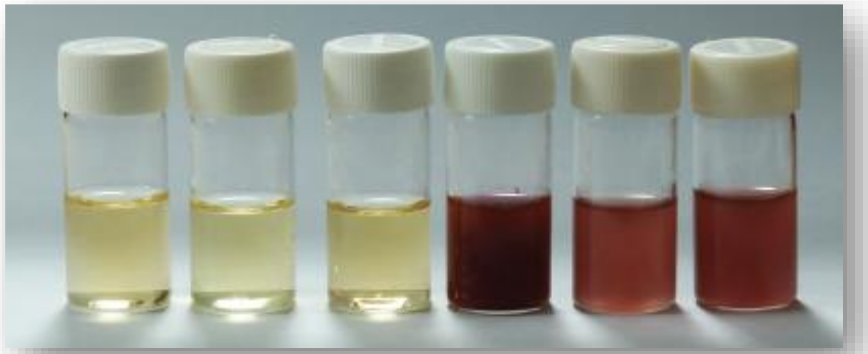
Minimising the risks of transmission of TSE is based upon three complementary parameters:

- the source animals and their geographical origin,
- nature of animal material used in manufacture and any procedures in place to avoid cross-contamination with higher risk materials,

(3) Regulatory guidance and position papers have been issued by the Committee for Proprietary Medicinal Products and its Biotechnology Working Party on human tissue derived medicinal products in relation with CJD and vCJD. Such guidance can be found on http://www.emea.eu.int.

(4) Pigs and birds, which are animal species of particular interest for the production of medicinal products, are not naturally susceptible to infection via the oral route. Therefore they are not TSE-relevant animal species within the meaning of this chapter. Also dogs, rabbits and fish are non-TSE-relevant animal species within the meaning of this chapter.

HiFill™ Test HiVeg™



MV2018G

Microbial contamination is indicated by colour change from light yellow to maroon-red

- Beneficial to pharmaceutical sectors
- In this line the HiFill™ Test Medium with the addition of MFT indicator, helps to verify the microbiological growth in aseptic production process.
- MFT Indicator in the medium is utilized by all microorganisms and the microbial contamination is indicated by colour change
- Easier method for detection of contamination with less time consumption.
- *Developed against Biomerieux equivalent : Media Fill 3P® It also contains a unique color indicator, changing from yellow to maroon-red in case of contamination*.

Soyabean HiVeg™ Medium

Why contaminate your sterile line with Animal Products??

When it can be swift and safe with HiFill™ HiVeg™ Media

MFT
Media Fill Trial

Media fill studies, simulates the filling process during production and helps in detecting contamination in the production line, if any. Generally the commercial media is prepared, autoclaved and after filtering through a 0.2 micron sterilizing filter is used to investigate presence or absence of contamination. To make the process faster, efficient and safer; HiMedia provides **gamma irradiated dehydrated culture media** which can be directly used. Soyabean HiVeg™ medium sterile powder, γ-irradiated from vegetable source can be used.

3 - General Considerations
3-1: Scientific Principles for Minimising risk

"When manufacturers have a choice, the use of materials from 'non TSE-relevant animal species' or non-animal origin is preferred"

Source EP 8.0,2014 <Section 5.2.8> Minimising the risk of transmitting TSE via medicinal products

Switch now to

Animal Free Media **MV011G**
Soyabean HiVeg™ Medium, Sterile Powder

Gamma Irradiated Medium for Media Fill Trial

Also available classical Tryptone Soya Broth as per USP MH011G / GMH011G*
*Granulated form

HiMediaLaboratories™
himedialabs.com

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Media Fill : Maximum Benefits & Minimizing Risks with HiVeg™ Gamma Irradiated TSB.

Media fills simulate the whole process in order to evaluate the sterility confidence of the process. Process simulation studies include formulation, filtration and filling with suitable media. In general, a microbiological growth medium such as Tryptic Soy Broth should be used. Use of anaerobic growth media (e.g. Fluid Thioglycollate medium) should be considered in special circumstances.

With the spurt in number of BSE symptoms across global bovine population & and its exhibit CJD in humans concerns were raised about bovine origin products.

Elimination of BSE/TSE Risk can be achieved by use of raw material from right origin & right parts of the animal. Definition of Risk Categories by EU:

Category A: High infectivity (e.g. brain, spinal cord)
Category B: Moderate infectivity (e.g. spleen, lung, liver)
Category C: No infectivity found (e.g. milk, bile, skeletal muscle, heart, skin)

HiMedia only sources from risk category 'C' for its products. Moreover as per the Definition of Geographical BSE Risk by EU, raw material sourced from India has no listings. In spite of such a proven track record of quality, a step further to provide more secure process HiVeg™ culture media was launched. Both USP & EP preferred or recommend that alternative, non-animal source ingredients be substituted for animal-source ingredients whenever possible.

The risk of Mycoplasma is always lurking in the raw material. Moreover Mycoplasma can move through 0.2 mm filters & Reach high titers (10^7 — 10^8 cfu/ml) without producing pH changes or media turbidity proving itself as invisible threat. In such cases a prudent step ahead to provide maximum quality assurance is to provide γ-irradiated TSB.

γ- Irradiation does not affect product performance, and results in a Contaminant-free material, this has been evaluated by comparative studies on growth performance of pharmacopoeia listed pathogens. Thus HiVeg™ γ-irradiated TSB is the choice of a prudent quality system.

Introduced gamma irradiated HiFill™ Test Medium recommended for the evaluation of sterility in manufacturing process for easy detection of contamination. The medium is designed with TSB containing an MFT indicator wherein the colour change is from yellow to pink red.

Reference:

- The USP Perspective to Minimize the Potential Risk of TSE-Infectivity in Bovine-derived Articles Used in the Manufacture of Medical Products; with Ian DeVeau and Roger Dabbah. Pharmacopoeial Forum. 30(5):1911-1921. 2004
- European Pharmacopoeia (Supplement 6.3), 2008, European Department, for the Quality of Medicines

HiMedia No.	Product Range for Media Fill trials
M011G-500G M011G-2.5KG M011G-5KG	Soyabean Casein Digest Medium, Sterile Powder γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process.
MV011G-500G MV011G-2.5KG MV011G-5KG	Soyabean HiVeg Medium, Sterile Powder γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process.
GMV011G-500G	Soyabean HiVeg Medium, Granulated, Sterile γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process.
MH011G-500G	Soyabean Casein Digest Medium, Sterile powder γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process.
GMH011G-500G	Soyabean Casein Digest Medium, Granulated, Sterile γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process.
M165GG-500G M165GG-2.5KG	Soyabean Casein Digest Medium w/ Mannitol, Sterile Powder γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process. It can also be used for cultivation of a wide variety of microorganisms.
M165SG-500G M165SG-2.5KG M165SG-5KG	Soyabean Casein Digest Medium w/ BCP, Sterile Powder γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process.
M010G-500G M010G-2.5KG M010G-5KG	Alternative Thioglycollate Medium, Sterile Powder γ-irradiated sterile powder recommended for evaluation of sterility in manufacturing process.
MV010G-500G MV010G-2.5KG MV010G-5KG	Alternative Thioglycollate HiVeg Medium, Sterile Powder γ-irradiated sterile powder recommended for evaluation of sterility in manufacturing process.
MU010G-500G MU010G-2.5KG MU010G-5KG	Alternative Thioglycollate Medium, Sterile Powder γ-irradiated sterile powder recommended for evaluation of sterility in manufacturing process in accordance with USP.
M2010G-500G	HiFill™ Test Medium γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process for easy detection of contamination by Media Fill Test.
MV2010G-500G	HiFill™ Test HiVeg Medium γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process for easy detection of contamination by Media Fill Test.
MCD2010G-500G	HiFill™ Test HiCynth™ Medium γ-irradiated sterile powder recommended for the evaluation of sterility in manufacturing process for easy detection of contamination by Media Fill Test.
RM565G-5KG RM565G-50KG	Lactose monohydrate, Sterile (γ irradiated sterile powder)
RM565GT-5KG	Lactose monohydrate, Sterile Powder (γ irradiated Triple Pack)
RM570G-5KG RM570G-50KG	D-Mannitol, A. R. sterile (γ irradiated)

Bulk packing are available on request for all above products.

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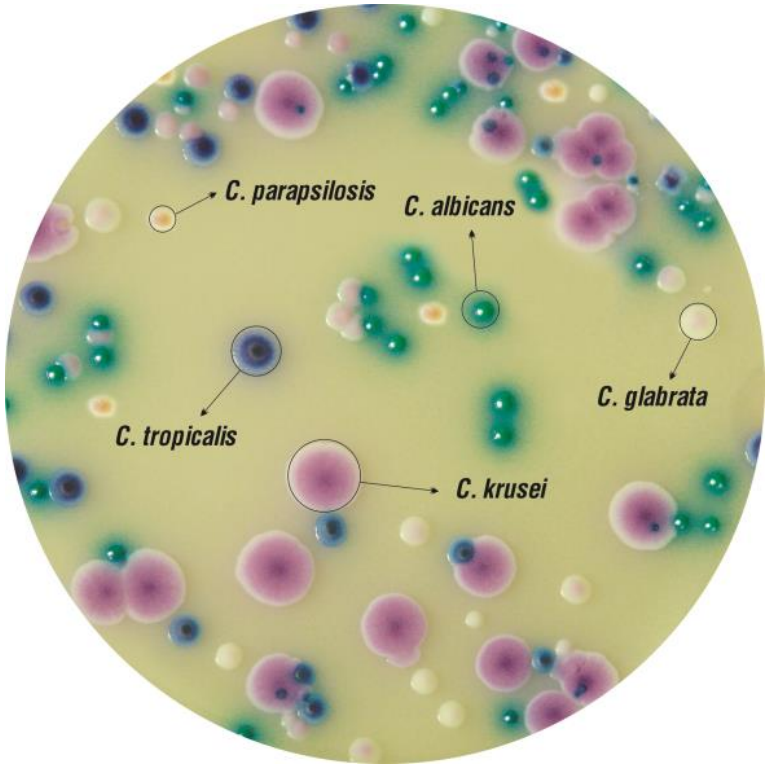
HiCrome™ - Chromogenic Media

- Largest range of more than 80 such media
- Easy identification & differentiation
- Saves time
- Designed for significant bacterial identification, yeast identification
- Differentiating within a group of organisms
- HiVeg™ HiCrome™ Media also available



HiCrome™ Chromogenic Coliform Agar (CCA)

M1991I suggest for detection of *Escherichia coli* and coliforms in water samples. The composition and performance criteria of this medium are as per the specifications laid down in ISO 9308-1:2014 .

It is exactly equivalent to Merck 1.10426.0500

Folic Acid Casei Medium

Available Globally

HiMedia's
Folic Acid Casei Medium, M543

For the microbiological assay of folic acid in blood serum

Using Lactobacillus casei ATCC 7469 as the test organism.

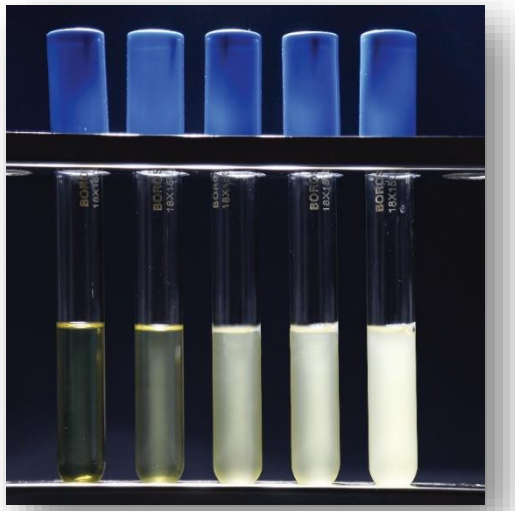
* Only HiMedia has this Medium

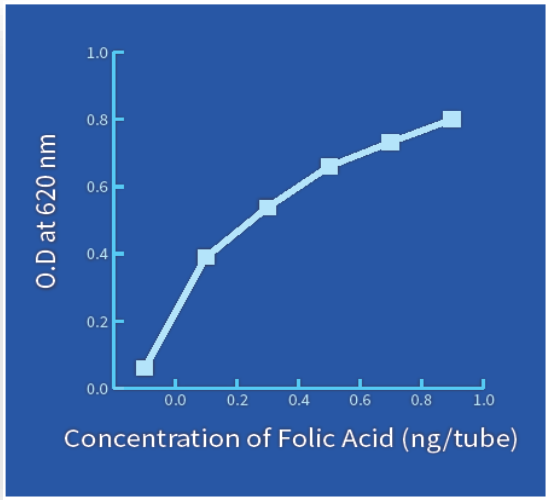
Folic Acid Casei Medium

How does it work?

Cell density of *Lactobacillus casei* is dependent on the folic acid content in the growth medium. By measuring the turbidity of the growth medium containing the sample, the folic acid content of the sample can be determined.

Users of Folic Acid Casei Medium are found in the clinical, pharmaceutical and food industry.

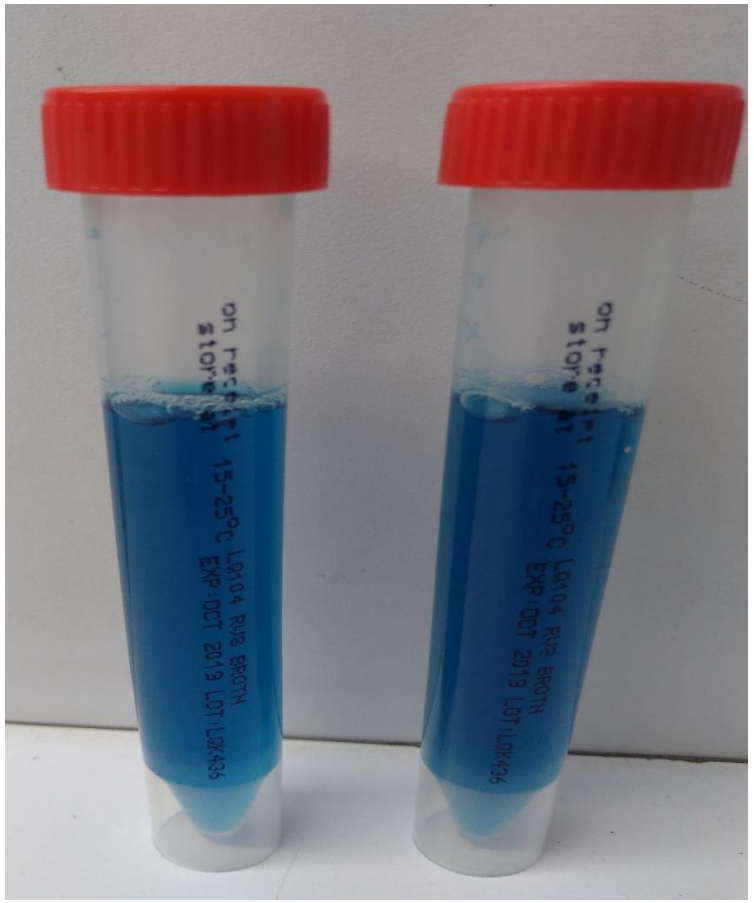




The folic acid concentration of the sample is determined by means of a standard curve.

LQ104 - Rappaport Vassiliadis Medium

- Sterile Medium in Ready prepared form
- Convenient Pack sizes of 5ML, 10ML, 20ML
- For direct inoculations of samples
- Recommended for Selective Enrichment Medium for Salmonella
- Sterilized by autoclaving at 115°C as per validated cycle
- Sterility assurance level assured by using BI strips
- Formula in compliance with as per Pharmacopoeias USP, EP, BP, JP
- For use in Pharmaceuticals, Clinical and Food testing



LQ104 - Rappaport Vassiliadis Medium

Table 2.6.13.-1 – *Growth promoting, inhibitory and indicative properties of media*

	Medium	Property	Test strains
Test for bile-tolerant gram-negative bacteria	Enterobacteria enrichment broth-Mossel	Growth promoting	*E. coli* *P. aeruginosa*
		Inhibitory	*S. aureus*
	Violet red bile glucose agar	Growth promoting + indicative	*E. coli* *P. aeruginosa*
Test for *Escherichia coli*	MacConkey broth	Growth promoting	*E. coli*
		Inhibitory	*S. aureus*
	MacConkey agar	Growth promoting + indicative	*E. coli*
Test for *Salmonella*	Rappaport Vassiliadis *Salmonella* enrichment broth	Growth promoting	*Salmonella enterica* ssp. *enterica* serotype typhimurium or *Salmonella enterica* ssp. *enterica* serotype abony
		Inhibitory	*S. aureus*
	Xylose, lysine, deoxycholate agar	Growth promoting + indicative	*Salmonella enterica* ssp. *enterica* serotype typhimurium or *Salmonella enterica* ssp. *enterica* serotype abony
		Indicative	*E. coli*
Test for *Pseudomonas aeruginosa*	Cetrimide agar	Growth promoting	*P. aeruginosa*
		Inhibitory	*E. coli*
Test for *Staphylococcus aureus*	Mannitol salt agar	Growth promoting + indicative	*S. aureus*
		Inhibitory	*E. coli*
Test for clostridia	Reinforced medium for clostridia	Growth promoting	*Cl. sporogenes*
	Columbia agar	Growth promoting	*Cl. sporogenes*
Test for *Candida albicans*	Sabouraud dextrose broth	Growth promoting	*C. albicans*
	Sabouraud dextrose agar	Growth promoting + indicative	*C. albicans*

Rappaport Vassiliadis Medium
MH1491 & GMH1491

- Recommended for selective enrichment of Salmonella from pharmaceutical products
- In accordance with the Tests for specified organisms-Nonsterile products (formerly microbial limit testing) by harmonized methodology of USP/EP/BP/JP.
- Advised to sterilize by autoclaving at 115°C as per validated cycle as given in pharmacopoeia
- Available Pack sizes of 100G, 500G, 2.5KG , 5KG
- g/l of HiMedia MH1491 & GMH1491 is 27.11*
  while g/l of Merck 1.07666.0500 is 42.5

*Loss of water molecules of magnesium chloride, hexahydrate 29.0 g in medium is accounted in dehydrated medium

Rappaport Vassiliadis Medium
MH1491 & GMH1491

Neutral red	30.0 mg
Crystal violet	1 mg
Purified water	1000 ml

Adjust the pH so that after sterilisation it is 7.1 ± 0.2 at 25 °C. Boil for 1 min with constant shaking then sterilise in an autoclave using a validated cycle.

Rappaport Vassiliadis *Salmonella* enrichment broth

Soya peptone	4.5 g
Magnesium chloride hexahydrate	29.0 g
Sodium chloride	8.0 g
Dipotassium phosphate	0.4 g
Potassium dihydrogen phosphate	0.6 g
Malachite green	0.036 g
Purified water	1000 ml

Dissolve, warming gently. Sterilise in an autoclave using a validated cycle, at a temperature not exceeding 115 °C. The pH is to be 5.2 ± 0.2 at 25 °C after heating and autoclaving.

Xylose, lysine, deoxycholate agar

Heat to boiling for 1 min with shaking. Adjust the pH so that after sterilisation it is 7.2 ± 0.2 at 25 °C. Sterilise in an autoclave using a validated cycle.

Mannitol salt agar

Pancreatic digest of casein	5.0 g
Peptic digest of animal tissue	5.0 g
Beef extract	1.0 g
D-Mannitol	10.0 g
Sodium chloride	75.0 g
Agar	15.0 g
Phenol red	0.025 g
Purified water	1000 ml

Heat to boiling for 1 min with shaking. Adjust the pH so that after sterilisation it is 7.4 ± 0.2 at 25 °C. Sterilise in an autoclave using a validated cycle.

Reinforced medium for clostridia

Beef extract	10.0 g
Peptone	10.0 g
Yeast extract	3.0 g

HIMEDIA®

Technical Data

Rappaport Vassiliadis Salmonella Enrichment Broth MH1491

Intended use

Rappaport Vassiliadis Salmonella Enrichment Broth is recommended for selective enrichment of *Salmonella* species from pharmaceutical products in accordance with the microbial limit testing by harmonized methodology of USP/EP/BP/JP.

Composition**

Ingredients	Gms / Litre
Soya peptone	4.500
Sodium chloride	8.000
Dipotassium phosphate	0.400
Potassium dihydrogen phosphate	0.600
Magnesium chloride, hexahydrate	29.000
Malachite green	0.036
pH after sterilization (at 25°C)	5.2±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 27.11 grams of dehydrated medium(the equivalent weight of dehydrated medium per litre) in 1000 ml purified/ distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired into tubes and sterilize by autoclaving at 115°C as per validated cycle

Principle And Interpretation

Rappaport Vassiliadis Salmonella Enrichment Medium is designed according to the revised formulation by Van Schothorst et al (1) and is recommended for the selective enrichment of Salmonellae from pharmaceutical products. This medium can

MEDIA FOR FOOD & DAIRY APPLICATIONS

Few Typical Media used for Food & Dairy products Testing

For Total Bacterial Count

- M091 Plate Count Agar
- M1884 DEV Nutrient Agar

For Yeasts & Moulds

- M640 Rose Bengal Chloramphenicol Agar

For Meat & Poultry Antimicrobial Inhibitor Test Agar

- M1631 (pH 6.0),M1601 (pH 7.2),M1632 (pH 8.0)

Few Typical Media used for Food & Dairy products Testing

For Lactobacilli

- M1163 MRS Agar
- M641 Lactobacillus MRS Agar

For Bifidobacteria

- M1734 Bifidobacterium Selective Count Agar Base

For Osmophilic Organism

- M594 MY 40 Agar (Osmophilic Organisms)

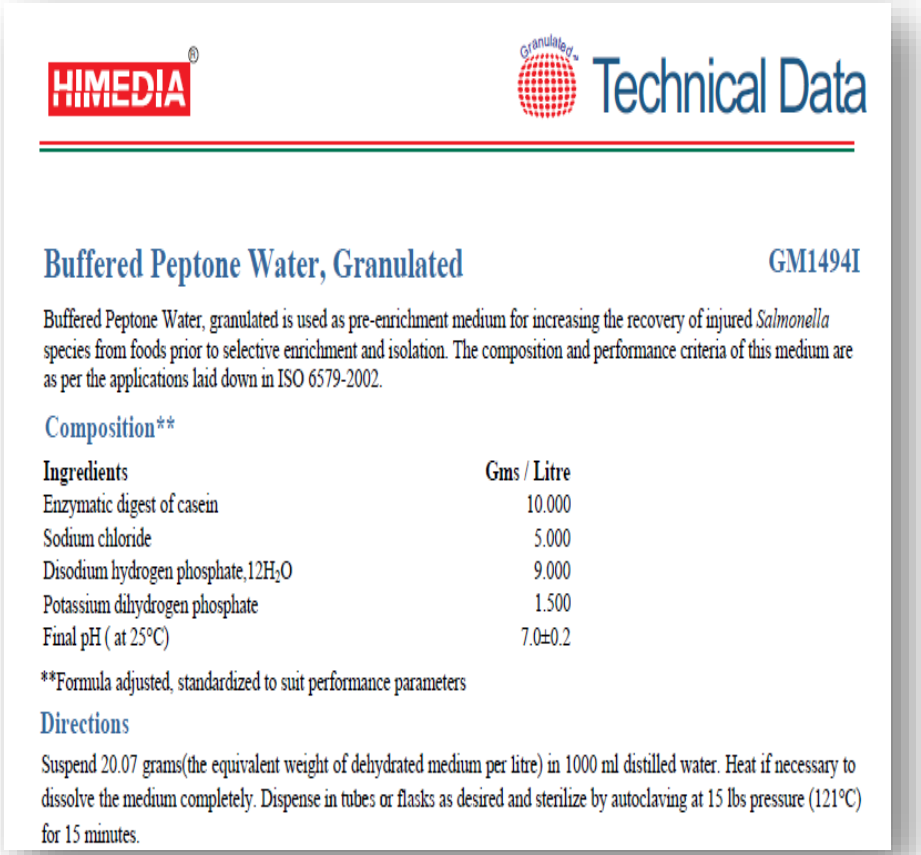
For Thermophilic Flat Sour Sporeformers

- M1104- M-Dextrose Tryptone Broth

Microbiology

Common Culture media for suspending, sample preparation and enrichment

Code	Product
GM525	Ringer salt solution
M028, M028I	Peptone Water
M1494, GM1494I	Buffered Peptone Water
M461	Phosphate Buffer
M618, M618I	Alkaline Peptone Water
M080	Lauryl Sulphate Broth
M149	Cooked Meat Medium



HIMEDIA®

Granulated™ Technical Data

Buffered Peptone Water, Granulated GM1494I

Buffered Peptone Water, granulated is used as pre-enrichment medium for increasing the recovery of injured *Salmonella* species from foods prior to selective enrichment and isolation. The composition and performance criteria of this medium are as per the applications laid down in ISO 6579-2002.

Composition**

Ingredients	Gms / Litre
Enzymatic digest of casein	10.000
Sodium chloride	5.000
Disodium hydrogen phosphate,12H_2O	9.000
Potassium dihydrogen phosphate	1.500
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 20.07 grams(the equivalent weight of dehydrated medium per litre) in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Buffered Peptone Water

Universal Medium for use as diluent and preparation of samples in food industries

- g/l of M614, MV614, MCD614: 20 g/l
- g/l of M1494I, GM1494I (as per ISO), MV1494I, MCD1494I: 20.07 g/l

  9 g Na_2HPO4 , 12 H_2O on dehydration is equivalent to 3.57 g Na2HPO4 anhydrous

- g/l of Merck 1.07228: 25.5 g/l

Buffered Peptone Water

MERCK

Technical Data Sheet

GranuCult™
Buffered Peptone Water
acc. ISO 6579, ISO 21528, ISO 22964, FDA-BAM and EP

Ordering number: 1.07228.0500 / 1.07228.5000

For the preliminary non-selective enrichment of bacteria, particularly pathogenic *Enterobacteriaceae* such as *Salmonella* and *Cronobacter*, from food and animal feed, water and other materials.

This culture medium complies with the specifications given by EN ISO 6579, EN ISO/FDIS 6579-1, EN ISO 6785 I IDF 93, EN ISO 19250, EN ISO 21528-1, ISO/TS 22964 I IDF/DRM 210, FDA-BAM, APHA and EP.

Mode of Action

The broth is rich in nutrients and produces high resuscitation rates for sublethally injured bacteria and intense growth. The phosphate buffer system prevents bacterial damage caused by changes in the pH of the medium. Peptone including enzymatic digest of casein acts as a source of carbon, nitrogen, vitamins and minerals whilst sodium chloride maintains the osmotic balance.

MERCK

Typical Composition

Specified by ISO 6579, ISO/FDIS 6579-1, ISO 19250, ISO 21528, ISO 22964		Specified by FDA-BAM M182		Specified by EP 2.6.31, ISO 6785 I IDF 93		GranuCult™ Buffered Peptone Water acc. ISO 6579, ISO 21528, ISO 22964, FDA-BAM and EP	
Enzymatic Digest of Casein*	10 g/l	Peptone	10 g/l	Peptone	10 g/l	Peptone (includes Enzymatic Digest of Casein)	10 g/l
NaCl	5 g/l	NaCl	5 g/l	NaCl	5 g/l	NaCl	5 g/l
Na_2HPO_4 x 12 H_2O	9 g/l	Na_2HPO_4 **	3.5 g/l	Na_2HPO_4 x 12 H_2O	9 g/l	Na_2HPO_4 x 12 H_2O	9 g/l
KH_2PO_4	1.5 g/l	KH_2PO_4	1.5 g/l	KH_2PO_4	1.5 g/l	KH_2PO_4	1.5 g/l
Water	1000 ml/l	Water	1000 ml/l	Water	1000 ml/l	Water	n/a
pH at 25 °C	7.0 ± 0.2	pH at 25 °C	7.0 ± 0.2	pH at 25 °C	7.0 ± 0.2	pH at 25 °C	7.0 ± 0.2

* ISO/FDIS 6579-1 specifies: Peptone - for example, enzymatic digest of casein.

** 3.57 g Na_2HPO_4 anhydrous is equivalent to 9 g Na_2HPO_4 x 12 H_2O

Preparation

Dissolve 25.5 g in 1 l of purified water. If desired dispense into smaller vessels and autoclave 15 min at 121 °C.

The prepared medium is clear and yellowish. The pH value at 25 °C is in the range of 6.8-7.2.

Experimental Prooedure and Evaluation

Depend on the purpose for which the medium is used.

Incubate the inoculated broth under aerobic conditions, e.g. acc. to EN ISO 6579 36-38 °C for 16-20 h, acc. to EN ISO/FDIS 6579-1 at 34-38 °C for 16-20 h.

Transfer material from the resulting culture to a selective enrichment culture medium following the method given by the appropriate standard.

According to EN ISO/FDIS 6579-1, it is permissible to store the pre-enriched sample after incubation at +2 to +8 °C for a maximum of 72 h.

Buffered Peptone Water

HIMEDIA

Technical Data

Buffered Peptone Water

M1494I

Intended use

Buffered Peptone Water is used as pre-enrichment medium for increasing the recovery of injured *Salmonella* species from foods prior to selective enrichment and isolation. The composition and performance criteria of this medium are as per the applications laid down in ISO 6579-2017 , ISO 6887 and ISO 21528-2017.

Composition**

Ingredients	Gms / Litre
Tryptone #	10.000
Sodium chloride	5.000
Disodium hydrogen phosphate.12H2O	9.000
Potassium dihydrogen phosphate	1.500
FinalpH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Enzymatic digest of casein

Directions

Suspend 20.07 grams(equivalent weight of dehydrated medium) in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Microorganisms that are subjected to environmental stresses may become structurally or metabolically damaged or injured. These microorganisms are unable to replicate in selective environments. Therefore these injured organisms must be resuscitated or permitted to repair the damage by incubation in an appropriate, non-selective environment (1). Edel and Kampelmacher (2) noted that sublethal injury to Salmonellae may occur in many food preservation processes. Enriching injured cells in Lactose

HIMEDIA

Granulated

Technical Data

Buffered Peptone Water, Granulated

GM1494I

Buffered Peptone Water, granulated is used as pre-enrichment medium for increasing the recovery of injured *Salmonella* species from foods prior to selective enrichment and isolation. The composition and performance criteria of this medium are as per the applications laid down in ISO 6579-2002.

Composition**

Ingredients	Gms / Litre
Enzymatic digest of casein	10.000
Sodium chloride	5.000
Disodium hydrogen phosphate,12H_2O	9.000
Potassium dihydrogen phosphate	1.500
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters

Directions

Suspend 20.07 grams(the equivalent weight of dehydrated medium per litre) in 1000 ml distilled water. Heat if necessary to dissolve the medium completely. Dispense in tubes or flasks as desired and sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes.

Principle And Interpretation

Microorganisms that are subjected to environmental stresses may become structurally or metabolically damaged or injured. These microorganisms are unable to replicate in selective environments. Therefore these injured organisms must be resuscitated

MEDIA FOR WATER APPLICATIONS

Microbiology

Media used for Water Testing

For Enumeration

- M091 Plate Count Agar

For Heterotrophic Plate Count

- M962 R2A Agar

For Total Count & Gelatin Liquifying Organism

- M1609 Gelatin DEV Agar

For Yeasts & Moulds

- M063 Sabouraud Dextrose Agar

For Aerobic Bacteria

- M290 Soyabean Casein Digest Agar

Culture media for detecting coliforms in water and waste water

Coliforms

MPN Tests

- M080 Lauryl Sulphate Broth
- M083 MacConkey Broth Purple w/BCP
- M458 Violet Red Bile Broth

Membrane Filter Technique

- M1106 M-Endo Agar LES
- M1111 M-FC Broth Base
- M1023 M-Lauryl Sulphate Broth
- M1066 M-Tergitol 7 Agar Base
- M1991I HiCrome™ Chromogenic Coliform Agar (CCA Agar) ISO 9308-1:2014.

Microbiology

Chemical Testing

Multi Parameter Water Testing Kit - WT015

Comprehensive Lab-Free Qualitative and Quantitative Chemical Water Testing in a Single Kit

- Fluoride • Nitrate • Iron • Residual (Free) chlorine
- Chloride • Total hardness • Turbidity test • pH test

Bureau of Indian standards have set the requirements for essential and desirable characteristics to be tested for ascertaining the suitability of water in IS 10500-1991.

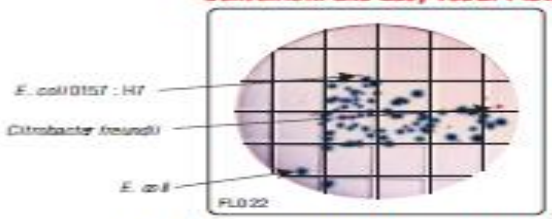
WT015 offered by HiMedia is a Multiparameter water testing kit determining levels of fluoride, nitrate, iron, residual (free) chlorine, chloride and total hardness besides measuring turbidity and pH.

Kit contents :

Type of test	Range
Fluoride	0.0-5.0 mg/L (ppm) as Fluoride
Nitrate	0.0-250 mg/L (ppm) as Nitrate (NO_3)
Iron	0.0 - 2.0 mg/L (ppm) as Iron
Residual (Free) chlorine	0.0-2.0 mg/L (ppm) as free chlorine
Chloride	10-200 mg/L (ppm) and 50-1000 mg/L (ppm) as Chloride
Total hardness	25-600 mg/L (ppm) as $CaCO_3$
Turbidity test	10-500 NTU, standards of 10 & 25 NTU
pH test	pH test strips of range 6.5 to 9.0.

Typical Tests Employed for Water Testing

Convenient and Easy Touch Plates



HiTouch *E. coli* Coliform Count *Flexi* Plate - FL022

Baird - Parker Agar - M043
Staphylococcus aureus (ATCC 6538)

Mac Conkey Broth - M007

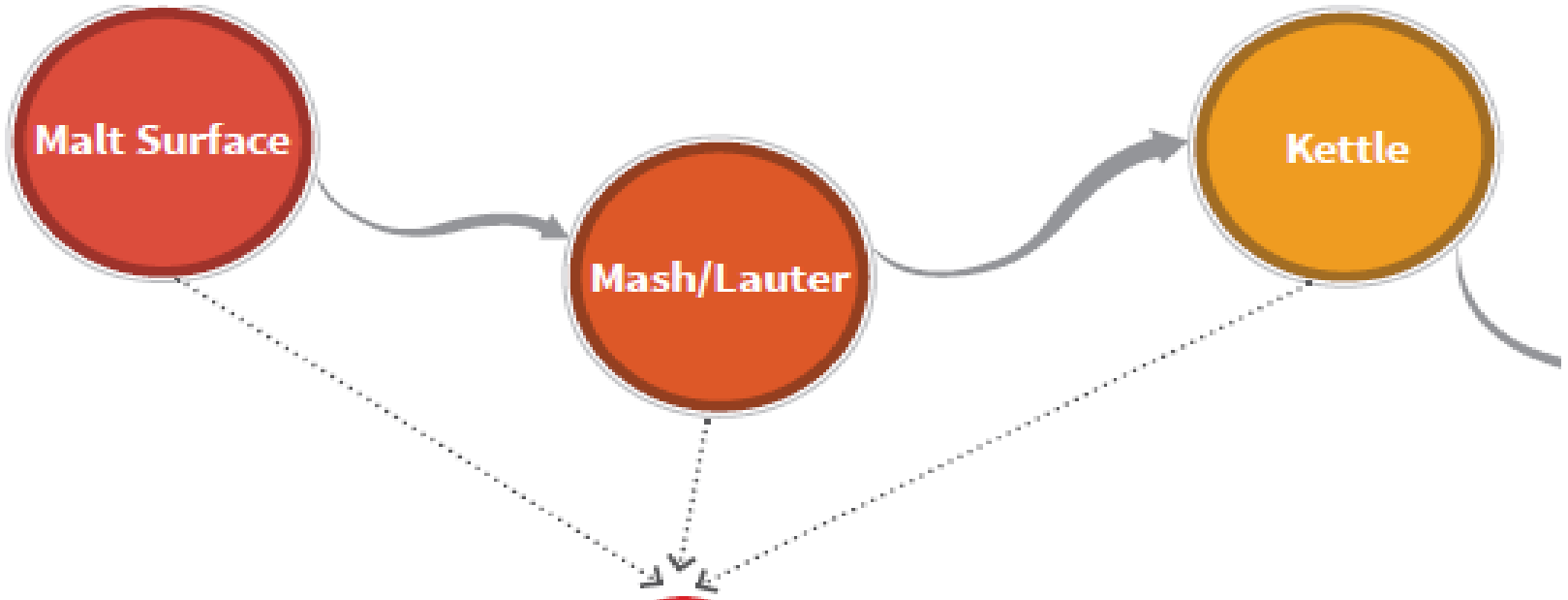
1. Uninoculated control
2. *Escherichia coli* (ATCC 25922)
3. *Enterobacter aerogenes* (ATCC 13048)
4. *Klebsiella pneumoniae* (ATCC 13883)
5. *Staphylococcus aureus* (ATCC 25923)
6. *Enterococcus faecalis* (ATCC 29212)

Hi-Dip Slides for Lab-Free Testing

Rose Bengal Agar - HD008
fungal growth observed

CULTURE MEDIA FOR BREWERY & FERMENTATION

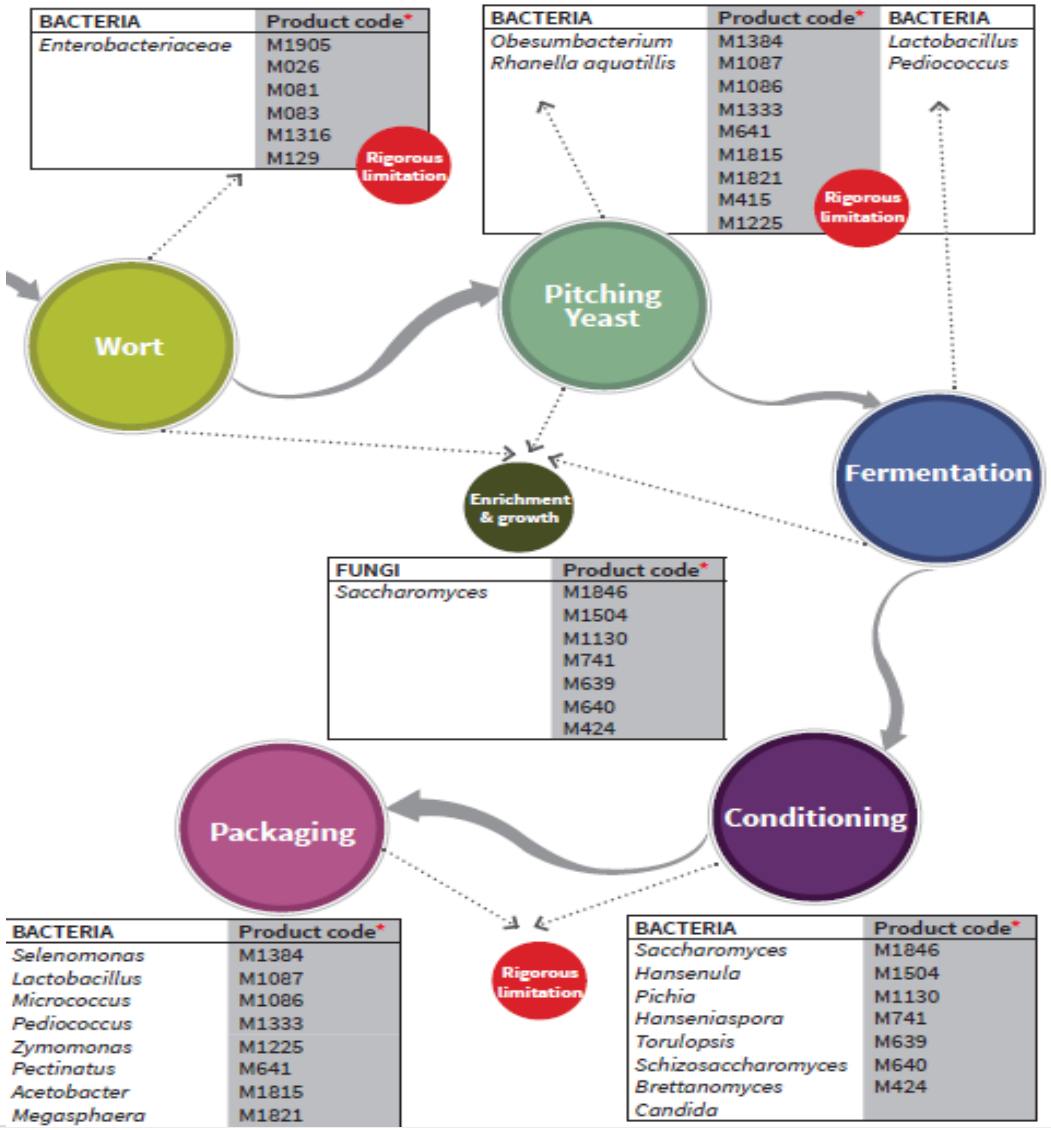
Microbiology



BACTERIA	Product code*
Bacillus	M1905
Enterobacteriaceae	M026
Flavobacterium	M081
Actinomycetales	M083
Alcaligenes	M1316
Lactobacillus	M1384
Pseudomonas	M1087
Acetobacteriaceae	M1086
	M1333

FUNGI		Product code*
Candida	*Rhodotorula*	M1846
Penicillium	*Epicoccum*	M1504
Debaryomyces	*Sporobolomyces*	M1130
Aspergillus	*Cladosporum*	M741
Hansenula	*Trichosporum*	M639
Alternaria	*Botrytis*	M640
Hanseniaspora	*Aureobasidium*	M424
Fusarium	*Absidia*	

Microbiology



Brewery & Fermentation

The Code Nos. Marked with Green Leaves are also available as HiVeg™ Media

Code	Product
	Controlling Fermentation Processes
	1. Agar Media
M1225	Acetate Agar
*M058	Actidione Agar Base w/o Actidione®
*M400	Actidione Agar w/ Actidione®
M642	Lysine Medium Base
FD123	50% Potassium Lactate
M253	Malt Agar
M1605	Modified NBB Agar (Pedi-Lacto Selective Agar base)
M1815	Pedi Lacto Selective Agar Base Modified
M1821	Pedi Lacto Selective Broth Base (Modified NBB Broth)
*M828	Sucrose Agar for Brewery Isolates
M1483	Universal Beer Agar, Modified
*M415	Universal Beer Agar (UB Agar)
*M115	WL Nutrient Medium
*M1060	WL Differential Agar
*M129	Wort Agar
	2. Liquid Media
M978	Anaerobic Fermentation Medium Base
*M885	Andrade Peptone Water
*M909	Andrade Peptone Water w/ HM Extract
M401	Blue Agar
*M676	Bromo Cresol Purple Broth Base (Yeast Fermentation Broth Base)
*M351	CHO Medium Base
M1662	Enteric Fermentation Base
M1589	Glucose Agar
*M860	Glucose Broth
M2000	Modified WL Nutrient Medium
*M028	Peptone Water
M1332	Universal Liquid Medium
*M1060	WL Differential Agar
*M410	WL Differential Broth
*M050	WL Nutrient Broth
*M333	Wort Broth
	Brewing
	1. Coliforms
M1905	Bromo Cresol Purple Agar w/ Lactose
*M026	Fluid Lactose Medium
*M081	MacConkey Agar w/ 0.15% Bile Salts, CV and NaCl
*M083	MacConkey Broth Purple w/ BCP
*M1316	Super Broth
	2. Lactobacilli / Yeasts
M1384	Lactic Acid Bacteria Selective Broth Base (Raka-Ray No. 3 Broth Base)
FD055	Lactic Supplement
FD155	Lactic Supplement Modified
*M1087	Lactic Bacteria Differential Agar
*M1086	Lactic Bacteria Differential Broth
*M1333	Lee's Multidifferential Agar
M609	Litmus SM Broth
M642	Lysine Medium Base
FD123	50% Potassium Lactate
M1846	MGYP Agar with Copper
M1504	M-BCG Yeast and Mould Agar
M1130	M-BCG Yeast and Mould Broth
M1741	M-BCG Yeast and Mould Broth, Modified
*M641	MRS Agar (Lactobacillus MRS Agar)
M1923	MRS Agar w/ pH 5.5
M639	Oxytetra Glucose Yeast Agar Base (OGYE Agar Base)
FD032	Oxytetra Selective Supplement
M1815	Pedi Lacto Selective Agar Base Modified
M1821	Pedi Lacto Selective Broth Base (Modified NBB Broth)
*M130	Rogosa SL Agar
*M640	Rose Bengal Chloramphenicol Agar
*M1331	SCHWARZ Differential Medium
M829	Tomato Juice Medium Base
FD098	Lactobacilli Supplement
*M415	Universal Beer Agar (UB Agar)
M1483	Universal Beer Agar, Modified
M1332	Universal Liquid Medium
*M1060	WL Differential Agar
*M410	WL Differential Broth
*M050	WL Nutrient Broth
*M115	WL Nutrient Medium
*M129	Wort Agar
*M424	Yeast Malt Agar (YM Agar) (ISP Medium No. 2)

Literature code: TL_25001_V_Culture media for brewery & fermentation_0817

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For life is precious

Ezy MIC™ Strip

- A single step Method For Antimicrobial Susceptibility Test
- According to EUCAST and CLSI
- Cellulose paper strip, printed with 30 MIC values on either side
- Coated with antibacterial agent in a concentration gradient manner.
- To be placed on seeded agar surface and incubate, shows accurate MIC value on incubation.
- Spare capacity for immediate ramp up of production
- Shows accurate MIC value on incubation

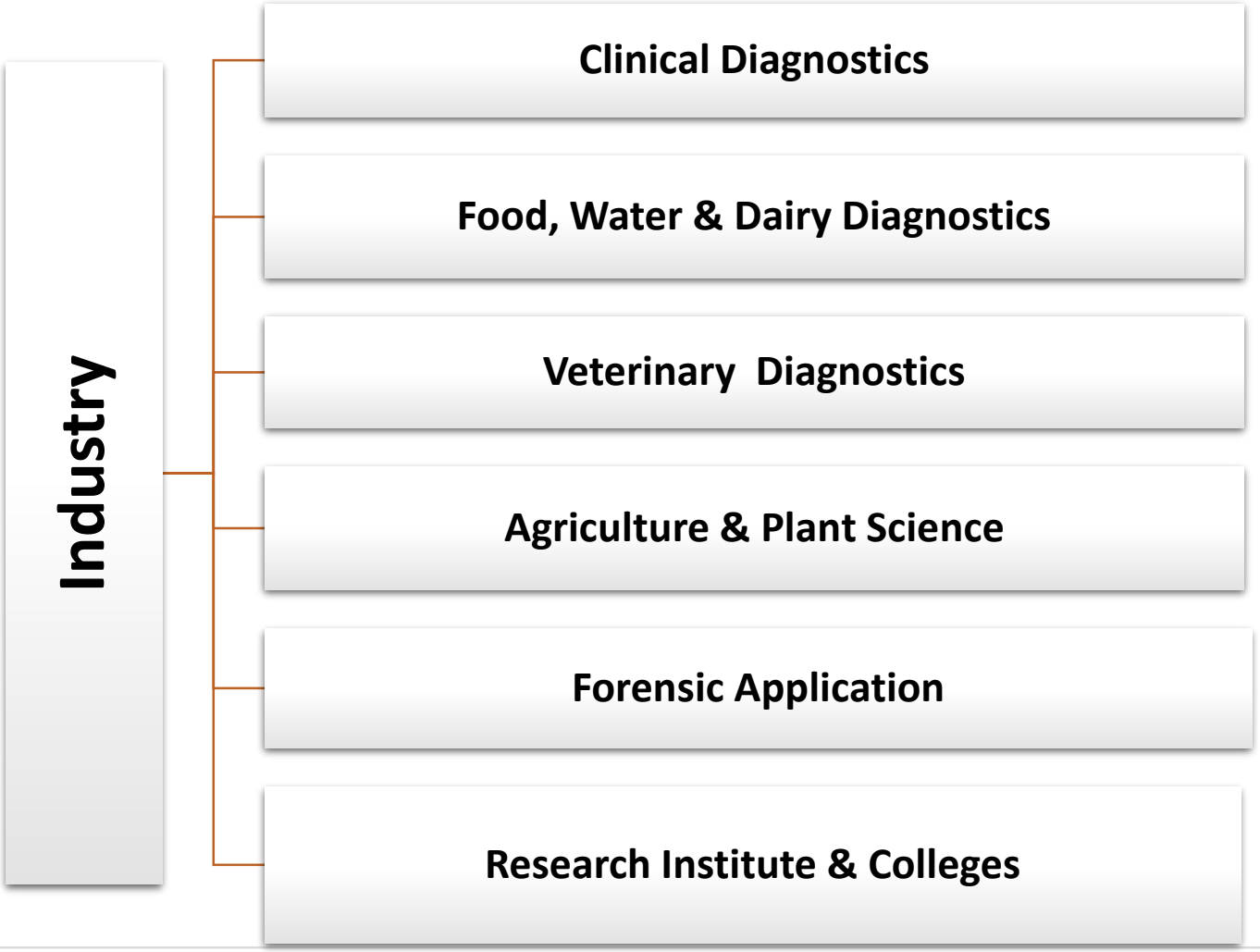
Molecular Biology

HiMedia's has led to Progressions for

- Diagnostics
- Therapeutics
- Genetic screening

Molecular Biology

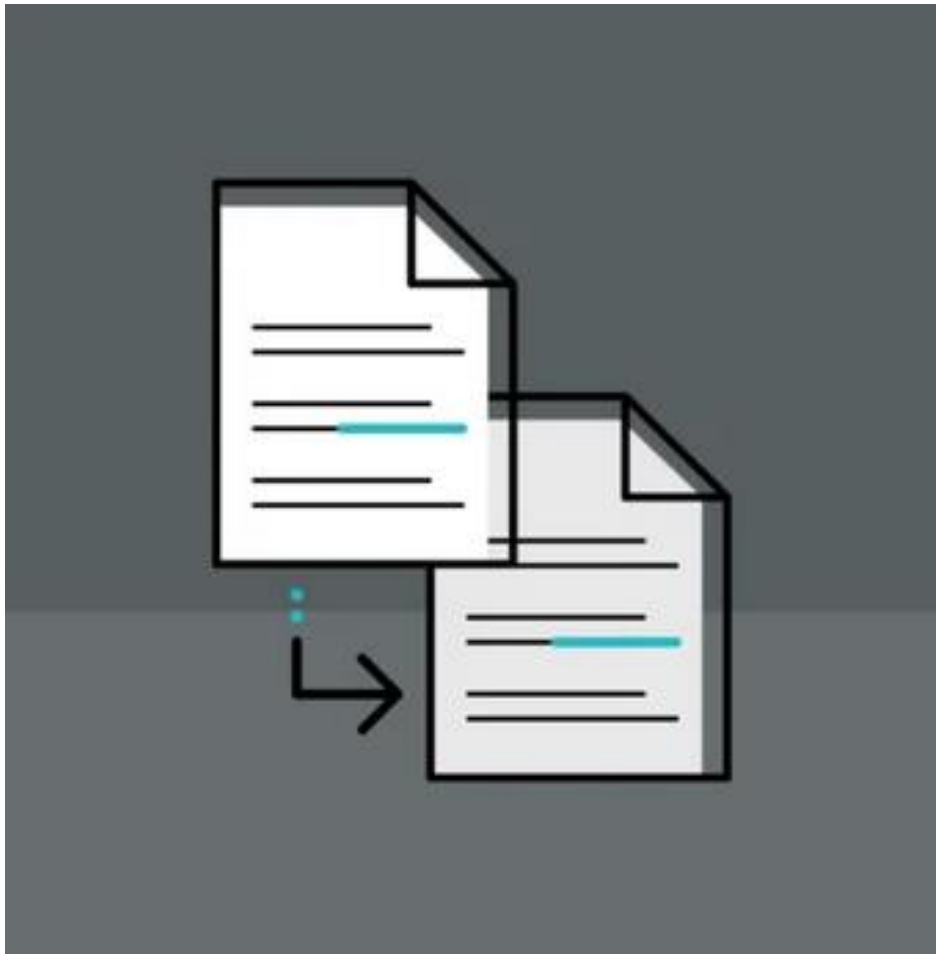
Target Industry for Molecular Biology Products



Molecular Biology

HiMedia offers a Complete end to end Solution for Automation in Molecular Biology

Cross-Reference Search



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