



# PRODUCT SPECIFICATION SHEET

## ISP Medium No. 2 (Yeast Malt Agar) (DM715)

### Intended Use

ISP Medium No. 2 (Yeast Malt Agar) (DM715) is recommended for the isolation and cultivation of yeasts, moulds and other aciduric microorganisms.

### Product Summary and Explanation

Yeast Malt Agar is prepared as per the formula described by Wickerham<sup>(1,2)</sup> for isolation and cultivation of yeasts, moulds and other aciduric microorganisms. Fungistatic materials such as sodium propionate and diphenyl are added to YM Agar to eliminate moulds and thus permit enumeration of yeasts from mixed population. YM Agar is also recommended by APHA.<sup>(3)</sup> Media selectivity may be enhanced through acidification or through addition of selective agents. YM Broth may be acidified prior to sterilization. Acidified YM Agar should not be heated. Antibiotics may be aseptically added to the sterile media.

### Principles of the Procedure

ISP Medium No. 2 (Yeast Malt Agar) contains peptic digest of animal tissue which serves as a source of carbon, nitrogen and essential nutrients. Yeast extract supplies vitamin B complex nutrients, amino acids and other growth factors. Malt extract serves as an additional source of carbon, protein and nutrients. Dextrose is the carbohydrate and energy source. To increase the selectivity, the media can be acidified by the addition of sterile 10% HCl, tartaric acid or 10% citric acid. Alternatively antibiotics (penicillin 20U/ml or streptomycin to a final concentration of 40mcg/ml) can be added. Acidified agar medium should not be reheated.

### Formula / Liter

Ingredients	Gms / Liter
Peptic digest of animal tissue	5.00
Yeast extract	3.00
Malt extract	3.00
Dextrose	10.00
Agar	20.00
Final pH: 6.2 ± 0.2 at 25°C	
Formula may be adjusted and/or supplemented as required to meet performance specifications	

### Precautions

1. For Laboratory Use only.
2. IRRITANT. Irritating to eyes, respiratory system, and skin.

### Directions

1. Suspend 20.5 grams in 490 ml distilled water.
2. Heat to boiling, to dissolve the medium completely.
3. Autoclave at 121°C, 15 psi pressure, for 15 minutes / validated cycle.
4. For preparing selective media acidify the media up to pH 3.0 to 4.0 by aseptically adding 1 vial of 10% Lactic Acid Solution (MS045).
5. DO NOT HEAT the medium after addition of acid.
6. Mix well and pour into sterile petri plates.

### Quality Control Specifications

Dehydrated Appearance	Cream to beige homogeneous free flowing powder
Prepared Medium	Light amber coloured clear to slightly opalescent gel forms in Petri plates
Reaction of 4.1% solution	pH 6.2 ± 0.2 at 25°C





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<b>Gel Strength</b>	Firm, comparable with 2.0% Agar gel
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**Expected Cultural Response:** Cultural characteristics observed after an incubation at 25-30°C for 40-72 hours.

Sr. No.	Organisms	Results to be achieved			
		Inoculum (CFU)	Growth at pH 3.4	Growth at pH 6.2	Recovery
1.	<i>Aspergillus brasiliensis</i> ATCC 16404	50-100	good-luxuriant	good-luxuriant	>=50%
2.	<i>Candida albicans</i> ATCC 10231	50-100	good-luxuriant	good-luxuriant	>=50%
3.	<i>Escherichia coli</i> ATCC 25922	50-100	inhibited	good-luxuriant	>=50%
4.	<i>Lactobacillus casei</i> ATCC 9595	50-100	poor	good-luxuriant	>=50%
5.	<i>Lactobacillus leichmannii</i> ATCC 4797	50-100	poor	good-luxuriant	>=50%
6.	<i>Saccharomyces cerevisiae</i> ATCC 9763	50-100	good-luxuriant	good-luxuriant	>=50%

The organisms listed are the minimum that should be used for quality control testing.

## Test Procedure

1. Refer to appropriate references for specific test procedures for the isolation and cultivation of yeasts, moulds and other aciduric microorganisms.
2. It is suggested to use of Yeast Malt Broth (DM716) as an enrichment medium for yeasts by adding a layer of sterile paraffin oil (about 1 cm) on the surface of inoculated broth.
3. After the growth occurs it should be streaked on Yeast Malt Agar to obtain isolated colonies of fermentative species.
4. To isolate fermentative as well as oxidative strains, Yeast Malt Broth (DM716) acidified to pH 3.0-4.0 is placed on a rotary shaker for 1 or 2 days which favors development of yeast cells while the sporulation of moulds is prevented and yeasts can be isolated by streaking on Yeast Malt Agar.

## Results

Refer to appropriate references and specific test procedures for interpretation of results.

## Storage

Store the sealed bottle containing the dehydrated medium at 10 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light.

## Expiration

Refer to the expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing, or if the appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

## Limitations of the Procedure

1. For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification.
2. Consult appropriate texts for detailed information and recommended procedures.

## Packaging

**Product Name :** ISP Medium No. 2 (Yeast Malt Agar)

**Product Code :** DM715

**Available Pack sizes :** 100gm / 500gm





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## References

1. Wickerham L. J., 1951, U.S. Dept. Agric. Tech. Bull. No.1029.
2. Wickerham L. J., 1939, J. Tropical Med. Hyg., 42:176.
3. Downes F. P. and Ito K.,(Ed.), 2001, Compendium of Methods for the Microbiological examination of Foods, 4th Ed, APHA Inc. Washington DC.

## Further Information

For further information please contact your local MICROMASTER Representative.

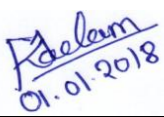




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