PSEUDOMONAS ISOLATION AGAR

INTENDED USE
Remel Pseudomonas Isolation Agar is a solid medium recommended for use in qualitative procedures for the isolation and identification of *Pseudomonas* species from clinical and nonclinical specimens.

SUMMARY AND EXPLANATION
Pseudomonas Isolation Agar is a modification of the Medium A formulation of King, Ward, and Raney.[1] Irgasan® is added as a potent broad-spectrum antimicrobial. The formulation of this medium was developed to enhance the production of pyocyanin which aids in the presumptive identification of *Pseudomonas aeruginosa*. Pseudomonas Isolation Agar is especially useful in isolating *Pseudomonas* from industrial materials such as cosmetics and lotion.

PRINCIPLE
P. aeruginosa is the only species of bacteria known to produce pyocyanin, a blue-green pigment which diffuses into the medium surrounding the growth. Gelatin and meat peptones provide the nutrients necessary for bacterial growth. The medium has a low phosphorous concentration which facilitates pyocyanin production. Magnesium chloride and potassium sulfate incorporated in the medium also enhance pyocyanin production. Glycerol added to the prepared medium also enhances pyocyanin production and is an energy source. Irgasan® is the selective agent which inhibits many gram-positive and gram-negative bacteria other than *Pseudomonas* spp.

REAGENTS (CLASSICAL FORMULA)*

Gelatin Peptone	10.0	g	Magnesium Chloride	1.4	g
Meat Peptone	10.0	g	Irgasan®	25.0	mg
Potassium Sulfate	10.0	g	Agar	13.6	g
			Demineralized Water	1000.0	ml

pH 7.0 ± 0.2 @ 25°C

*Adjusted as required to meet performance standards.

PRECAUTIONS
This product is For Laboratory Use only. It is not intended for use in the diagnosis of disease or other conditions.

PREPARATION OF DEHYDRATED CULTURE MEDIUM
1. Suspend 45 g of medium in 980 ml of demineralized water.
2. Add 20 ml of glycerol.
3. Heat to boiling with agitation to completely dissolve.
4. Sterilize by autoclaving at 121°C for 15 minutes or following established laboratory procedures.
5. Dispense into appropriate containers.

PROCEDURE
1. Consult current editions of appropriate references for the recommended procedure for sample preparation, inoculation, testing, and interpretation.

QUALITY CONTROL
Each lot number of Pseudomonas Isolation Agar has been manufactured, packaged, and processed in accordance with current Good Manufacturing Practice regulations. All lot numbers have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

CONTROL	INCUBATION	RESULTS
Pseudomonas aeruginosa ATCC® 27853	Ambient, up to 48 h @ 33-37°C	Growth, blue-green pigment
Pseudomonas fluorescens ATCC® 13525	Ambient, up to 48 h @ 33-37°C	Growth, no pigment
Escherichia coli ATCC® 25922	Ambient, 18-24 h @ 33-37°C	Inhibition (partial to complete)
Staphylococcus aureus ATCC® 25923	Ambient, 18-24 h @ 33-37°C	Inhibition (partial to complete)

LIMITATIONS
1. Occasional strains of *Pseudomonas aeruginosa* fail to produce pyocyanin.[3]

BIBLIOGRAPHY

1. King, E.O., M.K. Ward, and D.E. Raney. 1954. J. Lab. Clin. Med. 44:301-306.
2. Brown, V.I. and E.J.L. Lowbury. 1965. J. Clin. Pathol. 18:752-756.
3. Gaby, W.L. and E. Free. 1953. J. Bacteriol. 65:746.

Refer to the front of Remel *Technical Manual of Microbiological Media* for **General Information** regarding precautions, product storage and deterioration, sample collection, storage and transportation, materials required, quality control, and limitations.

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