PRODUCT SPECIFICATION

CE

Product Name	**Mycoplasma / Ureaplasma Agar**
Product Code	**PO5081A**

Form of Product	Poured plate
Storage	6 – 12°C, dark
Filling weight	13.5 g ± 5 %
Packaging	10 plates wrapped in foil
pH	6.4 ± 0.2
Colour	Traffic yellow, transparent
Shelf life	6 weeks
Intended Usage	A selective medium for the detection, isolation and enumeration of *Mycoplasma* and *Ureaplasma* species mainly in urogenital specimens. For professional use only.
Technique	Depends on the different methods. For information see Product Information.

Typical Formulation*	grams per litre
Pancreatic digest of casein	13.6
Papaic digest of soybean meal	2.4
Sodium chloride	4.0
Dibasic potassium phosphate	2.0
Glucose	2.0
Manganese (II) sulphate Monohydrate	0.16
Horse serum	200.0 ml
Yeast extract	2.5
Vitox supplement	5.0 ml
L-Cystein HCl	0.1
Urea	1.0
Antibiotic mixture	0.05
Phenol red	0.03
Agar	10.0

* Adjusted as required to meet performance standards.

Quality Control

1. Control for general characteristics, labelling and printing.

2. Control for sterility
   ≥ 72 h @ 25 ± 1°C, aerobic
   ≥ 72 h @ 36 ± 1°C, aerobic

3. Biological control
   Inoculum size for productivity: 10 - 100 cfu per plate
   Inoculum size for specificity: < 10 000 cfu per plate
   Inoculum size for selectivity: 10^4 – 10^5 cfu per plate

   Incubation conditions: 48 hours @ 36 ± 1°C, anaerobic

Control Strain	Growth
Mycoplasma hominis ATCC® 14027	Typical “fried-egg” colonies.
Ureaplasma urealyticum ATCC® 27618	Dark brown “sea urchin” colonies. Medium around colonies turns into red.
Staphylococcus aureus ATCC® 6538	Complete inhibition (≤ 10 cfu).
Escherichia coli ATCC® 25922	Complete inhibition (≤ 10 cfu).
Candida albicans ATCC® 10231	No to inhibited growth.

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APPENDIX

PRODUCT INFORMATION

Product Name	**Mycoplasma / Ureaplasma Agar**
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Description

Mycoplasma and *Ureaplasma* species are parasites on the surface of human and animal epithelium cells. Because some metabolic pathways are missing they are completely dependent on their hosts which deliver them the essential growth factors. So besides the rich peptone base the medium includes the necessary nutrients (Vitox, cystein, yeast extract, urea and horse serum) which are *in vivo* offered by the host. Mycoplasma / Ureaplasma Agar is designed for the detection and enumeration of *Mycoplasma* and *Ureaplasma* species mainly from urogenital specimen. The antibiotic mixture inhibits most gramnegative and grampositive bacteria as well as yeasts which might be present in the specimens. The colourless colonies of *Mycoplasma hominis* form the typical “fried egg” appearance (growth density dependent). Colonies of *Ureaplasma urealyticum* are dark-brown and grow in typical “sea urchin” morphology. *U. urealyticum* metabolizes urea which results in a pH shift to alkaline conditions. Therefore manganese sulphate is oxidised into manganese oxide which is incorporated by *U. urealyticum* which gives the dark brown colour of the colonies. The pH shift leads to the colour shift of the pH indicator phenol red. As a consequence the medium around the *Ureaplasma* colonies turns from yellow into red.

Technique

Mycoplasma species are very sensitive against desiccation because the lack of a cell wall. So for transportation all specimens should be inoculated into a liquid transportation medium[1,2], such as Mycoplasma / Ureaplasma Enrichment Broth (TV5081A). Mycoplasma / Ureaplasma Agar should be inoculated with a few drops of the liquid or of urine. Do not streak, as colonies essentially grow at the edge of the drop. Incubate anaerobically for 48 hours up to 1 week at 36 ± 1°C and inspect daily for grow th.

Literature

1. Elke Halle, Renate Bollmann, H. Blenk, Irina Dawydowa, H. Halle, W.R. Heizmann, U.B. Hoyme, Ch. Jantos, Helga Meisel, H. Näher, W. Weidner; MIQ – Qualitätsstandards in der mikrobiologisch-infektiologischen Diagnostik 11/2000; Genitalinfektionen Teil II; Seite 65-67; Urban & Fischer Verlag, München-Jena.
2. F. Burkhardt (Hrsg.); Mikrobiologische Diagnostik; Seite 309-314; Georg Thieme Verlag Stuttgart-New York.