

COLUMBIA C.N.A./ GARDNERELLA V.

Selective media for staphylococci, streptococci, pneumococci, and *Gardnerella vaginalis* isolation.

COLUMBIA C.N.A. TYPICAL FORMULA (g/L)		GARDNERELLA VAGINALIS TYPICAL FORMULA (g/ L)	
Casein Peptone Plus	8.0	Casein Peptone Plus	8.0
Soy Peptone A3	4.0	Soy Peptone A3	4.0
Meat Peptone	8.0	Meat Peptone	8.0
Corn Starch	1.0	Corn Starch	1.0
Sodium Chloride	5.0	Sodium Chloride	5.0
Colistin Sulfate	0.01	Sheep Defibrinated Blood	60.0 mL
Nalidixic Acid	0.015	Agar	15.0 mL
Agar	15.0	Gentamicin	6.0 mg
Sheep Defibrinated Blood	60.0 mL	Nalidixic Acid	30.0 mg
		Amphotericin B	2.0 mg
Final pH 7.3 ± 0.2		Final pH 7.2 ± 0.2	

DESCRIPTION

COLUMBIA C.N.A. is a selective medium for staphylococci, streptococci and pneumococci isolation.

GARDNERELLA V. AGAR is a selective medium for *Gardnerella vaginalis* isolation.

PRINCIPLE

Casein Peptone Plus, Soy Peptone A3, Meat Peptone provide nitrogen, carbon, sulphur and other essential growth factors. Sodium chloride maintains the osmotic balance of the medium. Corn Starch is a source of carbon. Defibrinated blood supplies further growth factors for fastidious microorganisms and allows to enhance haemolytic reactions. Agar is the solidifying agent.

In **COLUMBIA C.N.A.** colistin and nalidixic acid constitute selective agents: particularly colistin destroys cell membrane of Gram-negative bacteria, whilst nalidixic acid inhibites DNA replication in Gram-negative bacteria.

In **GARDNERELLA V. AGAR** Gentamicin inhibits many Gram-positive and Gram-negative bacteria (enterobacteria, staphylococci, *Pseudomonas*), Nalidixic Acid inhibits Gram-negative bacteria whilst Amphotericin B inhibits the development of fungi and yeasts.

TECHNIQUE

Inoculate plates streaking the sample to test on the agar surface using a sterile loop. Incubate at 36±1°C for 24-48 hours, in a 5-10% CO₂ atmosphere.

INTERPRETATION OF RESULTS

On **COLUMBIA C.N.A.** and **GARDNERELLA V. AGAR** observe for growth and for haemolytic reactions. Four different kinds of haemolysis can be distinguished:

1. alfa-haemolysis: haemoglobin is reduced to metahaemoglobin in the medium surrounding the colony and this causes a greenish decolouring of the medium;
2. beta-haemolysis: it is the lysis of erythrocytes which is evident in the bright zone around the colony;
3. gamma-haemolysis: any destruction of erythrocytes or any change in the medium does not occur;
4. alfa ' -haemolysis: a little zone of complete haemolysis surrounded by a partial lysis area is evident.

STORAGE

2-8°C away from light, until the expiry date on the label or until signs of deterioration or contamination are evident.

WARNING and PRECAUTIONS

The product is not classified as hazardous by current legislation and does not contain harmful substances in concentrations of ≥1%. The product is designed for *In vitro* diagnostic use and must be used only by properly trained operators.

DISPOSAL of WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

- Ellner, P.D., C.J. Stoessel., E. Drakeford, and F. Vasi (1966). A new culture medium for medical bacteriology. Am. J.Clin. Path. 45, 502-504.
- Isenberg, H.D. (ed.) (1992). Clinical microbiology procedures handbook, vol. 1 American Society for Microbiology, Washington, DC.



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PRODUCT SPECIFICATIONS

NAME

COLUMBIA C.N.A./ GARDNERELLA V.

PRESENTATION

Ready plates (90 mm) with two sectors.

STORAGE

2-8 °C

PACKAGE

Code	Content	Packaging
18422	20 plates	<ul style="list-style-type: none"> 5 plates in thermically soldered film 4 x 5 plates in cardboard box
18422*	100 plates	<ul style="list-style-type: none"> 5 plates in thermically soldered film 2 x 5 plates in plastic bag 10 piles (2x5 plates) in cardboard box

USE

COLUMBIA C.N.A. is a selective medium for staphylococci, streptococci and pneumococci isolation.

GARDNERELLA V. AGAR is a selective medium for *Gardnerella vaginalis* isolation.

TECHNIQUE

Refer to technical sheet of the product.

APPEARANCE OF THE MEDIUM

COLUMBIA C.N.A. and **GARDNERELLA V. AGAR** are cherry- red, opaque media.

SHELF LIFE

2 months








QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
 - 7 days at 25 ± 1°C, in aerobiosis
 - 7 days at 36 ± 1°C, in aerobiosis
- Microbiological control
 - Inoculum for productivity: 10-100 UFC/ml
 - Inoculum for selectivity: 10⁴-10⁵ UFC/ml
 - Inoculum for specificity: ≤ 10⁴ UFC/ml

Incubation conditions: 36 ± 1°C for 18-24 hours, in a 5-10% CO₂ atmosphere.

Microorganisms		Growth on COLUMBIA C.N.A.	Growth on GARDNERELLA V.
<i>Escherichia coli</i>	ATCC 25922	Inhibited	-
<i>Proteus mirabilis</i>	ATCC 25933	Inhibited	-
<i>Staphylococcus aureus</i>	ATCC 25923	Good/ Beta haemolysis	Inhibited
<i>Streptococcus pyogenes</i>	ATCC 19615	Good/ Beta haemolysis	-
<i>Gardnerella vaginalis</i>	ATCC 14018	-	Good/ Beta haemolysis

TABLE OF SYMBOLS

IVD In Vitro Diagnostic Medical Device	 Do not reuse	 Manufacturer	 Contains sufficient for <n> tests	 Temperature limitation
REF Catalogue number	 Fragile, handle with care	 Use by	 Caution, consult accompanying documents	LOT Batch code



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