



ComASP™ Vancomycin

ENGLISH

System for vancomycin susceptibility testing with the broth microdilution method, according to ISO 20776-1.

DESCRIPTION

Vancomycin is a glycopeptide antibiotic active against most Gram-positive bacteria. The drug is indicated mainly to treat or prevent infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA) or multidrug-resistant (MDR) *Enterococcus* spp. According to EUCAST guideline on detection of resistance mechanisms, the value of minimum inhibitory concentration (MIC) should always be determined when using vancomycin to treat a patient with severe *S. aureus* infection.

ComASP™ Vancomycin is a double-isolate test panel containing the dried up antibiotic in 15 two-fold dilutions:

- Vancomycin concentration ranges from 0.008 to 128 µg/ml;

The system is used to perform the broth microdilution (BMD) method for the antimicrobial susceptibility testing of vancomycin as recommended by international standards (i.e. CLSI, EUCAST, ISO) but in a simpler and less time-consuming way.

KIT CONTENT

- 4 Systems (panels) of ComASP Vancomycin (panels individually packed in foil with silica gel desiccant)
- 8 Tubes of Mueller Hinton II Broth (3.6 ml)
- 15 Sealing Film
- 1 Instructions Sheet (includes Test Results Form)

ITEMS NECESSARY BUT NOT INCLUDED IN THE KIT

- McFarland 0.5 Barium Sulphate Standard (ref. 80400)
- Solution reservoir for multichannel pipette (ref. 96761)
- Physiological Solution (ref. 20095)
- Tips for multichannel pipette (ref. 96758)
- Multichannel pipette 30-300 µl (ref. 96759)

CONFIGURATION

Test	Vancomycin concentration (µg/ml)						
A							
Growth	0.008	0.016	0.032	0.064	0.125	0.25	0.5
1	2	4	8	16	32	64	128
B							
Growth	0.008	0.016	0.032	0.064	0.125	0.25	0.5
1	2	4	8	16	32	64	128

Growth indicates growth control: No antimicrobial agent in the well.

PRINCIPLE OF THE METHOD

A panel allows the susceptibility testing of 2 different isolates.

All wells related to either test A, or B are rehydrated with a standardized microbial suspension.

After incubation in thermostat the result is read and interpreted.

COLLECTION AND STORAGE OF THE SAMPLE

ComASP Vancomycin is not for use directly with clinical or other specimens. The microorganism to be tested must first be isolated on a suitable culture medium, either selective or non-selective. In case of mixed culture, selected colonies should be purified by subculturing.

TEST PROCEDURE

1. Take a panel from its envelop and leave it at room temperature for 10 min, DO NOT DISCARD THE ENVELOP until both tests have been carried out.
2. Prepare a suspension of the test organism using either the direct colony suspension or growth method.
3. Standardize the suspension to the density of a McFarland 0.5 standard.
4. Optimally within 15 min of preparation, dilute the adjusted suspension 1:20 in saline; this will be the **Solution A**.
5. Add 0.4 ml of Solution A to a tube of MH II Broth* provided in the kit to obtain the **Solution B**.
6. Dispense 100 µl of Solution B into each well (test A or B).
7. Cover the panel with the lid provided and incubate at $36 \pm 2^\circ\text{C}$ for 16-20 hours in ambient air.

* Mueller Hinton II Broth: Beef Extract 3.0 g; Acid Hydrolysate of Casein 17.5 g; Starch 1.5 g;
Distilled Water 1000 ml; pH 7.3 ± 0.1
(adjusted with appropriate salts to provide 20-25 mg/l of calcium and 10-12.5 mg/l of magnesium)

READING THE RESULTS

At the end of the incubation period observe the growth in the wells and establish the MIC, i.e. the lowest concentration of antibiotic that inhibits visible growth.

The result can be read visually or automatically. Reading by the naked eye can be improved by use of bright indirect lighting against a dark background.

Growth appears as turbidity or as a button at the bottom of the well (compare with the amount of growth in the growth-control well).

The growth-control well should be evaluated first. Make sure it is positive for growth. If not, check the viability of the colonies picked and repeat the test using a new row in the same panel or a new panel and a microbial culture of recent growth.

Note the results on the Test Results Form (copy as many form as necessary).

INTERPRETATION OF THE RESULTS

The MIC obtained should be interpreted according to current EUCAST or CLSI interpretative criteria.

NOTE: If only one test has been performed in a panel, use the film provided in the kit to seal the inoculated rows so to prevent any leakage of contaminated fluids. Then, return the panel into its own desiccant envelop and into the refrigerator until time of testing (see STORAGE).

USER QUALITY CONTROL

Quality control of ComASP Vancomycin is performed using the reference strains reported below:

Strain		MIC QC range (µg/ml)
<i>Staphylococcus aureus</i>	ATCC® 29213	0.5 - 2
<i>Enterococcus faecalis</i>	ATCC® 29212	1 - 4

FACTORS THAT MAY INVALIDATE THE RESULTS

Contaminated culture; poor standardization of the inoculum; clinical material unsuitable; use of expired panels or expired supplementary reagents; non compliance with temperatures and times of incubation.

PRECAUTIONS

The product ComASP Vancomycin does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. ComASP Vancomycin is a disposable device to be used for *in vitro* diagnostic use only. The product must be used in the laboratory by properly trained personnel, using approved aseptic and safety methods for handling pathogenic agents.

STORAGE

Store ComASP Vancomycin at 2-8°C in the original packaging. Once an envelope is opened the panel should be used within 7 days. Keep away from direct sunlight and direct heat. Do not use the panels beyond the expiry date indicated on the label. Eliminate without using if there are signs of deterioration.

DISPOSAL OF USED MATERIAL

After use, ComASP Vancomycin and material that has come into contact with the sample must be decontaminated and disposed of in accordance with guidelines used in the laboratory for decontamination and disposal of potentially infected material.








REFERENCES

1. CLSI. Performance Standards for Antimicrobial Susceptibility Testing; 29th ed. CLSI Supplement M100S. Wayne, PA: Clinical and Laboratory Standards Institute; 2019.
2. CLSI. Methods for Dilution Antimicrobial Susceptibility Tests for Bacteria That Grow Aerobically; 11th ed. CLSI standard M07. Wayne, PA: Clinical and Laboratory Standards Institute; 2018.
3. The European Committee on Antimicrobial Susceptibility Testing. Breakpoint tables for interpretation of MICs and zone diameters. Version 9.0, 2019. <http://www.eucast.org>.
4. The European Committee on Antimicrobial Susceptibility Testing. Routine and extended internal quality control for MIC determination and disk diffusion as recommended by EUCAST. Version 9.0, 2019. <http://www.eucast.org>.
5. ISO 20776-1:2006. Clinical laboratory testing and in vitro diagnostic test systems -- Susceptibility testing of infectious agents and evaluation of performance of antimicrobial susceptibility test devices -- Part 1: Reference method for testing the in vitro activity of antimicrobial agents against rapidly growing aerobic bacteria involved in infectious diseases.

PRESENTATION

Product	µg/ml	Packaging	Ref.
ComASP™ Vancomycin	0.008 - 128	4x2 tests	75007

TABLE OF SYMBOLS

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



LIOFILCHEM® s.r.l.

Via Scozia zona ind.le, 64026 Roseto degli Abruzzi (Te) Italy
Tel. +39 0858930745 Fax +39 0858930330 www.liofilchem.com





TEST RESULTS FORM

Rev.0 / 04.10.2019
Appendix

ComASP™ Vancomycin

System for vancomycin susceptibility testing with
the broth microdilution method, according to ISO 20776-1

Patient data
Name
Surname
Age
Gender
Specimen
Notes

Indicate with the sign **+** the microbial growth.

Indicate with the sign **-** the absence of microbial growth.

Read the MIC and interpret the result according to the current EUCAST or CLSI interpretative criteria.

TEST		VANCOMYCIN CONCENTRATION (µg/ml)							MIC VALUE AND INTERPRETATION
A	Growth	0.008	0.016	0.032	0.064	0.125	0.25	0.5	
	1	2	4	8	16	32	64	128	
B	Growth	0.008	0.016	0.032	0.064	0.125	0.25	0.5	
	1	2	4	8	16	32	64	128	

Use a distinct test results form for each sample under investigation. A horizontal line should be drawn on the empty spaces related to an unused test, if any.

Date of Test	Operator
---------------------	-----------------