



# Antibiotic Disc

ENGLISH

Antibiotic discs for susceptibility tests

## DESCRIPTION

Antibiotic Disc are paper discs with special features, that are impregnated with antibiotic and used for the susceptibility test according to the Kirby-Bauer antibiotic testing (KB testing or disk diffusion antibiotic sensitivity testing).

Antibiotic Disc are available in a large variety of configurations. Each configuration is available in packages of 50 and 250 tests.

## CONTENTS OF THE PACKAGES

### Discs in cartridge

The 50-test box contains 1 cartridge with 50 discs packed in a desiccant envelope.

The 250-test box contains 5 cartridges of 50 discs, each cartridge individually packed in a desiccant envelope.

Each package also contains a transparent resealable bag.

### Discs in canister

The canister contains 250 discs and a desiccant tablet.

## METHOD PRINCIPLE

The discs are applied to the surface of a culture medium inoculated with a pure colony suspension of the microorganism under examination. After incubation, the plates are examined, the inhibition halos around each disc are examined and compared with the standard inhibition haloes: in this way the microorganisms are defined as being susceptible, intermediate or resistant to the tested antimicrobial agents.

## COMPOSITION

Liofilchem antimicrobial susceptibility test discs are made of high-quality paper in compliance with WHO and FDA specifications.

The discs are manufactured under the quality systems UNI EN ISO 9001 and EN ISO 13485, and to DIN specification for potency, i.e. the concentration of each antibiotic is within 90-125% of the concentration stated on the disc.

## GATHERING AND KEEPING SAMPLES

The colonies that are to be subjected to the susceptibility test are taken up by culture media that have been previously swabbed with the sample under examination. In the case of mixed colonies the bacterial strains must be purified before they are swabbed on the plates for the susceptibility test.

## TEST PROCEDURE

1. Allow discs to equilibrate to room temperature before opening the container (cartridge or canister) in order to minimize the condensation on the discs, which could affect long-term stability.
2. Make a suspension of the test organism to the density of a 0.5 McFarland turbidity standard.
3. Using a swab, inoculate a suitable agar plate medium by uniformly spreading the suspension over the entire agar surface.
4. Apply discs firmly to the surface of the inoculated agar plate.
5. Incubate plates in an inverted position at the appropriate temperature, atmosphere and time, following the methodology chosen (e.g. CLSI, EUCAST).
6. Return unused discs to the refrigerator/freezer as soon as the application of the discs has been completed (see STORAGE).

NOTE 1: The medium to be used depends on the organism under investigation and the methodology followed, and must be validated by the media manufacturer for antimicrobial susceptibility testing. A list of recommended agar media can be found at the end of this IFU.

NOTE 2: It is recommended to use the inoculum suspension within 15 minutes of preparation, apply discs within 15 minutes of inoculation and incubate plates within 15 minutes of disc application.

For more details, please refer to the current published standards.

## EVALUATING THE RESULTS / QUALITY CONTROL

At the end of the incubation period, measure the inhibition halos and interpret according to the current reference standards:

[Antibiotic Disc Interpretative Criteria and Quality Control \(pdf file\)](#)

## CLINICAL INTERPRETATION

The susceptibility test carried out *in vitro* cannot exactly reproduce *in vivo* conditions. Nevertheless, it shows the effect of the concentration of the antibiotic, which varies in the culture medium in relation to the growth of the microbial population.

The final choice of antibiotic to administer to the patient is the responsibility of the clinician who possesses all the information on the patient.

## LIMITS

Diffusion susceptibility tests use an *in vitro* technique and cannot therefore reproduce the extremely complex *in vivo* conditions. Nevertheless, it is a useful and important tool that helps the clinician choose the correct therapy. Many variable factors influence the final result of the diffusion susceptibility test. The main ones are: the culture medium used, impregnation of the discs, inoculation of the medium, temperature, time and incubation atmosphere of the plates, pre-incubation and pre-diffusion conditions, depth of the medium, etc.

## PRECAUTIONS

The Antibiotic Disc cannot be classified as being hazardous according to current legislation. Antibiotic Disc are disposable products. Antibiotic Disc are only for diagnostic *in vitro* use and are intended for professional use. They must be used in the laboratory by properly trained operators using approved aseptic and safety methods for pathogenic agents.

## STORAGE

The unopened package of Antibiotic Disc can be stored in most cases at  $-20^{\circ}\text{C}$  to  $+8^{\circ}\text{C}$  till the expiry date. Some products have to be stored at  $-20^{\circ}\text{C}$  as maximum storage temperature. The recommended temperature limits can be found both on the product envelop and on the box label. Leftover discs from an opened CARTRIDGE need to be stored at  $2-8^{\circ}\text{C}$  for no more than 7 days. The cartridge containing unused discs should be returned into its desiccant envelope and then inserted into the resealable bag. Discs in a CANISTER can be used for up to 2 months from first opening and must be stored at the label storage temperature. Dispose of expired discs.

## ELIMINATING USED MATERIAL

After use, Antibiotic Disc and the material that comes into contact with the sample must be decontaminated and disposed of in accordance with current laboratory techniques for the decontamination and disposal of potentially infected material.



# Antibiotic Disc

ITALIANO

Dischi antibiotici per antibiogramma

## DESCRIZIONE

Antibiotic Disc sono dischi di carta, con caratteristiche peculiari, impregnati con antibiotico, utilizzati per l'antibiogramma secondo il metodo Kirby-Bauer (test KB o antibiogramma a disco diffusione).

Antibiotic Disc sono previsti in una larga varietà di configurazioni. Ciascuna configurazione è disponibile nella variante da 50 e 250 test.

## CONTENUTO DELLE CONFEZIONI

### Dischi in cartuccia

La confezione da 50 test contiene 1 cartuccia con 50 dischi inserita in una bustina con film essiccante.

La confezione da 250 test contiene 5 cartucce da 50 dischi, ognuna in una bustina con film essiccante.

Ciascuna confezione contiene inoltre una bustina trasparente con chiusura a pressione.

### Dischi in barattolo

Il barattolo contiene 250 dischi e una compressa essiccante.












## PRINCIPIO DEL METODO

I dischi vengono applicati sulla superficie di un terreno di coltura inoculato con una sospensione di una coltura pura del microrganismo in esame. Dopo l'incubazione, vengono esaminate le piastre, misurati gli aloni di inibizione intorno a ciascun disco e confrontati con i diametri degli aloni di inibizione standard: in tal modo i microrganismi vengono definiti sensibili, intermedi o resistenti agli agenti antimicrobici testati.

## COMPOSIZIONE

I dischi Liofilchem per i test di sensibilità agli antimicrobici sono preparati con carta di alta qualità in conformità alla specifiche fornite dall'OMS e dalla FDA. I dischi sono prodotti secondo i sistemi di qualità UNI EN ISO 9001 ed EN ISO 13485, ed in conformità con le specifiche DIN per la potenza, ovvero la concentrazione di ciascun antibiotico rientra nell'intervallo del 90-125% della concentrazione indicata sul disco.

**TABELLA DEI SIMBOLI / TABLE OF SYMBOLS / TABLA DE LOS SÍMBOLOS / TABELLE DER SYMBOLE /  
TABLEAU DES SYMBOLES / Π'ΙΝΑΚΑΣ ΣΥΜΒΟΛΩ / MESA DE SÍMBOLOS / TABELA SYMBOLI**

	<b>It:</b> Dispositivo medico-diagnostico <i>in vitro</i> / <b>En:</b> <i>In Vitro</i> Diagnostic Medical Device / <b>Es:</b> Producto sanitario para diagnóstico <i>in vitro</i> / <b>De:</b> für <i>In Vitro</i> Diagnostik / <b>Fr:</b> Dispositif médical de diagnostic <i>in vitro</i> / <b>El:</b> <i>In Vitro</i> Διαγνωστικό Ιατροτεχνολογικό προϊόν / <b>Pt:</b> Dispositivo médico para diagnóstico <i>in vitro</i> / <b>Pl:</b> Wyrób medyczny do diagnostyki <i>in vitro</i>
	<b>It:</b> Non riutilizzare / <b>En:</b> Do not reuse / <b>Es:</b> No reutilizar / <b>De:</b> Nicht wiederverwenden / <b>Fr:</b> Ne pas réutiliser / <b>El:</b> Μην κάνετε επαναληπτική χρήση / <b>Pt:</b> Não reutilizar / <b>Pl:</b> Nie używać ponownie
	<b>It:</b> Fabbicante / <b>En:</b> Manufacturer / <b>Es:</b> Fabricante / <b>De:</b> Hersteller / <b>Fr:</b> Fabricant / <b>El:</b> Κατασκευαστής / <b>Pt:</b> Fabricante / <b>Pl:</b> Producent
	<b>It:</b> Contenuto sufficiente per "n" saggi / <b>En:</b> Contains sufficient for <n> tests / <b>Es:</b> Contenido suficiente para <n> ensayos / <b>De:</b> Enthält Material für <n> Tests / <b>Fr:</b> Contenu suffisant pour "n" tests / <b>El:</b> Περιεχόμενο επαρκές για «n» εξετάσεις / <b>Pt:</b> Conteúdo suficiente para "n" ensaios / <b>Pl:</b> Zawiera ilość wystarczającą na <n> testów
	<b>It:</b> Numero di catalogo / <b>En:</b> Catalogue number / <b>Es:</b> Número de catálogo / <b>De:</b> Bestellnummer / <b>Fr:</b> Référence du catalogue / <b>El:</b> Αριθμός καταλόγου / <b>Pt:</b> Referência de catálogo / <b>Pl:</b> Numer katalogowy
	<b>It:</b> Fragile, maneggiare con cura / <b>En:</b> Fragile, handle with care / <b>Es:</b> Frágil, manipular con precaución / <b>De:</b> Zerbrechlich, mit Vorsicht behandeln / <b>Fr:</b> Fragile, manipuler avec précaution / <b>El:</b> Εύθραστο, να χρησιμοποιείται με προσοχή / <b>Pt:</b> Frágil, manusear com cuidado / <b>Pl:</b> Delikatne, obchodzić się ostrożnie
	<b>It:</b> Utilizzare entro / <b>En:</b> Use By / <b>Es:</b> Fecha de caducidad / <b>De:</b> Verwendbar bis / <b>Fr:</b> Date limite d'utilisation / <b>El:</b> Ημερομηνία λήξης / <b>Pt:</b> Prazo de validade / <b>Pl:</b> Używany przez
	<b>It:</b> Attenzione, vedere le istruzioni per l'uso / <b>En:</b> Caution, consult accompanying documents / <b>Es:</b> Atención, ver instrucciones de uso / <b>De:</b> Vorsicht, Begleitdokumente beachten / <b>Fr:</b> Attention voir notice d'instructions / <b>El:</b> Προειδοποίηση, συμβουλευτείτε τα συνοδά έντυπα / <b>Pt:</b> Atenção, consulte a documentação incluída / <b>Pl:</b> Zapoznaj się z instrukcją użytkowania
	<b>It:</b> Limiti di temperatura / <b>En:</b> Temperature limitation / <b>Es:</b> Limite de temperatura / <b>De:</b> Temperaturbereich / <b>Fr:</b> Limites de température / <b>El:</b> Περιορισμοί θερμοκρασίας / <b>Pt:</b> Limites de temperatura / <b>Pl:</b> Ograniczenie temperatury
	<b>It:</b> Limite superiore di temperatura / <b>En:</b> Upper limit of temperature / <b>Es:</b> Limite superior de temperatura / <b>De:</b> Temperaturobergrenze / <b>Fr:</b> Limite supérieure de température / <b>El:</b> ανώτερο όριο θερμοκρασίας / <b>Sv:</b> högsta temperaturen / <b>Pt:</b> Limite superior de temperatura / <b>Pl:</b> Górna granica temperatury
	<b>It:</b> Codice del lotto / <b>En:</b> Batch code / <b>Es:</b> Código de lote número de lot / <b>De:</b> Charge / <b>Fr:</b> Numéro de lot / <b>El:</b> Αριθμός Παρτίδας / <b>Pt:</b> Código do lote / <b>Pl:</b> Kod partii

The following list of products might be out-of-date

[View the complete range of Antimicrobial Discs in cartridge and canister on Liofilchem's website](#)

Antibiotic discs in cartridge and canister			CLSI <sup>1</sup>	EUCAST <sup>3,4</sup>	Ref.*
Description		µg			
Amikacin	AK	30	✓	✓	9004
Amoxicillin	AML	2			9151
Amoxicillin	AML	10		✓	9133
Amoxicillin	AML	25			9179
Amoxicillin	AML	30			9005
Amoxicillin-clavulanic acid	AUG	3 (2/1)		✓	9191
Amoxicillin-clavulanic acid	AUG	7.5			9255
Amoxicillin-clavulanic acid	AUG	30 (20/10)	✓	✓	9048
Amoxicillin 2 + Clavulanic acid 0.1	AC	2.1 (2/0.1)			9273 ♦
Amoxicillin 2 + Clavulanic acid 0.5	AC	2.5 (2/0.5)			9274 ♦
Amoxicillin 5 + Clavulanic acid 0.1	AC	5.1 (5/0.1)			9275 ♦
Amoxicillin 5 + Clavulanic acid 0.5	AC	5.5 (5/0.5)			9276 ♦
Amoxicillin 5 + Clavulanic acid 1	AC	6 (5/1)			9277 ♦
Amoxicillin 10 + Clavulanic acid 0.1	AC	10.1 (10/0.1)			9278 ♦
Amoxicillin 10 + Clavulanic acid 0.5	AC	10.5 (10/0.5)			9279 ♦
Amoxicillin 10 + Clavulanic acid 1	AC	11 (10/1)			9280 ♦
Ampicillin	AMP	2		✓	9115
Ampicillin	AMP	10	✓	✓	9006
Ampicillin-sulbactam	AMS	20 (10/10)	✓	✓	9031
Ampliclox (Ampicillin + Cloxacillin)	ACL	30 (25/5)			9122
Azithromycin	AZM	15	✓	✓	9105
Azlocillin	AZL	75	✓		9007
Aztreonam	ATM	30	✓	✓	9008
Bacitracin	BA	10 units			9051
Carbenicillin	CAR	100	✓		9009
Cefaclor	CEC	30	✓	✓	9010
Cefadroxil	CDX	30		✓	9052
Cefamandole	MA	30	✓		9014
Cefazolin	KZ	30	✓	✓	9015
Cefepime	FEP	10			9220
Cefepime	FEP	30	✓	✓	9104
Cefepime + Clavulanic acid	FEL	40 (30/10)		✓ <sup>10</sup>	9143
Cefiderocol	FDC	30	✓	✓	9266
Cefixime	CFM	5	✓	✓	9089
Cefoperazone	CFP	30			9016
Cefoperazone	CFP	75	✓		9108
Cefotaxime	CTX	5		✓	9152
Cefotaxime	CTX	30	✓		9017
Cefotaxime	CTX	75			9134
Cefotaxime + Clavulanic acid	CTL	40 (30/10)		✓ <sup>10</sup>	9182
Cefotaxime + Clavulanic acid + Cloxacillin	CTLC			✓ <sup>10</sup>	9203
Cefotaxime + Cloxacillin	CTC	230 (30/200)		✓ <sup>10</sup>	9224
Cefotetan	CTT	30	✓		9081
Cefoxitin	FOX	30	✓	✓	9018
Cefoxitin + Cloxacillin	FOC	230 (30/200)			9144
Cefpirome	CR	30			9185
Cefpodoxime	PX	10	✓	✓	9064
Cefpodoxime + Clavulanic acid	PXL	11 (10/1)			9190
Cefprozil	CPR	30	✓		9112
Cefsulodin	CSD	30			9053
Ceftaroline	CPT	5		✓	9195
Ceftaroline	CPT	30	✓		9198
Ceftazidime	CAZ	10		✓	9153
Ceftazidime	CAZ	30	✓		9019
Ceftazidime-avibactam	CZA	14 (10/4)		✓	9206

Antibiotic discs in cartridge and canister				CLSI <sup>1</sup>	EUCAST <sup>3,4</sup>	Ref.*
Description		µg				
Ceftazidime-avibactam	CZA	50	(30/20)	✓		9205
Ceftazidime + Clavulanic acid	CAL	20	(20/10)		✓ <sup>9</sup>	9258 ♦
Ceftazidime + Clavulanic acid	CAL	40	(30/10)		✓ <sup>10</sup>	9145
Ceftazidime + Clavulanic acid + Cloxacillin	CALC				✓ <sup>10</sup>	9204
Ceftazidime + Cloxacillin	CAC				✓ <sup>10</sup>	9225
Ceftibuten	CTB	30		✓	✓	9101
Ceftizoxime	CZX	30		✓		9054
Ceftobiprole	BPR	5		✓	✓	9242
Ceftolozane-tazobactam	C/T	40	(30/10)	✓	✓	9246
<b>Ceftriaxone</b>	<b>CRO</b>	<b>30</b>		<b>✓</b>	<b>✓</b>	<b>9020</b>
Cefuroxime	CXM	1				9232
Cefuroxime	CXM	5				9236 ♦
<b>Cefuroxime</b>	<b>CXM</b>	<b>30</b>		<b>✓</b>	<b>✓</b>	<b>9021</b>
Cephalexin	CL	30			✓	9011
Cephalothin	KF	30		✓		9013
Cephradine	CE	30				9055
Chloramphenicol	C	10				9128
<b>Chloramphenicol</b>	<b>C</b>	<b>30</b>		<b>✓</b>	<b>✓</b>	<b>9022</b>
Cinoxacin	CIN	100		✓		9057
<b>Ciprofloxacin</b>	<b>CIP</b>	<b>5</b>		<b>✓</b>	<b>✓</b>	<b>9056</b>
Clarithromycin	CLR	15		✓		9098
Clavulanic acid	CLA	1				9229 ♦
Clavulanic acid	CLA	2				9228 ♦
Clavulanic acid	CLA	5				9230 ♦
Clavulanic acid	CLA	10				9231 ♦
<b>Clindamycin</b>	<b>CD</b>	<b>2</b>		<b>✓</b>	<b>✓</b>	<b>9047</b>
Clindamycin	CD	10				9146
<b>Cloxacillin</b>	<b>CX</b>	<b>5</b>				<b>9058</b>
Colistin sulfate	CS	10		✓		9023 ♦
Colistin sulfate	CS	25				9184 ♦
Colistin sulfate	CS	30	units			9141 ♦
Daptomycin (includes Ca <sup>2+</sup> )	DAP	30				9090
Dicloxacillin	DCX	1				9093
Dipicolinic acid	DP					9194
Doripenem	DOR	10		✓	✓	9154
<b>Doxycycline</b>	<b>DXT</b>	<b>30</b>		<b>✓</b>		<b>9059</b>
EDTA	ED					9087
Eravacycline	ERV	20		✓	✓	9238
Eravacycline	ERV	50				9237 ♦
Ertapenem	ETP	10		✓	✓	9061
Ertapenem + Cloxacillin	ET+CL					9199
Ertapenem + Phenylboronic acid	ET+BO					9202
Erythromycin	E	2				9180
<b>Erythromycin</b>	<b>E</b>	<b>15</b>		<b>✓</b>	<b>✓</b>	<b>9024</b>
Fosfomicin	FOS	50				9025
Fosfomicin (includes G6P 50)	FOS	100	(100/50)			9121
<b>Fosfomicin (includes G6P 50)</b>	<b>FOS</b>	<b>200</b>	<b>(200/50)</b>	<b>✓</b>	<b>✓</b>	<b>9109</b>
Fosfomicin 200 + G6P 200	FGP	200	(200/200)			9214 ♦
<b>Furazolidone</b>	<b>FR</b>	<b>50</b>				<b>9099</b>
Fusidic acid	FC	10		✓	✓	9049
Fusidic acid	FC	30				9111
Gatifloxacin	GAT	5		✓		9169
<b>Gentamicin</b>	<b>CN</b>	<b>10</b>		<b>✓</b>	<b>✓</b>	<b>9026</b>
<b>Gentamicin</b>	<b>CN</b>	<b>30</b>			<b>✓</b>	<b>9125</b>
Gentamicin	CN	120		✓		9124
Gentamicin	CN	500				9288 ♦
Imipenem	IMI	10		✓	✓	9079
Imipenem-relebactam	I/R	35	(10/25)	✓	✓	9253
Imipenem + Cloxacillin	IMI+CL					9086
Imipenem + EDTA	IM+ED					9183

Antibiotic discs in cartridge and canister					
Description		µg	CLSI <sup>1</sup>	EUCAST <sup>3,4</sup>	Ref.*
Imipenem + Phenylboronic acid	IMI+BO				• 9085
Kanamycin	K	30	✓		9027
Lefamulin	LMU	5		✓	9249 ♦
Lefamulin	LMU	20	✓		9250 ♦
<b>Levofloxacin</b>	<b>LEV</b>	<b>5</b>	<b>✓</b>	<b>✓</b>	<b>9102</b>
Levonadifloxacin	LND	10	✓		9267
Lincomycin	MY	2			9028
Lincomycin	MY	15			9116
<b>Linezolid</b>	<b>LNZ</b>	<b>10</b>		<b>✓</b>	<b>9155</b>
Linezolid	LNZ	30	✓		9136
Lomefloxacin	LOM	10	✓		9113
Mecillinam	MEC	10	✓	✓	9156
<b>Meropenem</b>	<b>MRP</b>	<b>10</b>	<b>✓</b>	<b>✓</b>	<b>• 9068</b>
Meropenem + Cloxacillin	MR+CL			✓ <sup>10</sup>	• 9175
Meropenem + EDTA	MR+ED			✓ <sup>10</sup>	• 9178
Meropenem + Phenylboronic acid	MR+BO			✓ <sup>10</sup>	• 9176
Methicillin	MET	5			9029
<b>Metronidazole</b>	<b>MTZ</b>	<b>5</b>		<b>✓</b>	<b>9076</b>
Metronidazole	MTZ	50			9119
Mezlocillin	MEZ	75			9062
Minocycline	MN	30	✓	✓	9030
<b>Moxifloxacin</b>	<b>MXF</b>	<b>5</b>	<b>✓</b>	<b>✓</b>	<b>9103</b>
Mupirocin	MUP	5			9189
Mupirocin	MUP	200	✓	✓	9157
Nafcillin	NAF	1	✓		9174
<b>Nalidixic acid</b>	<b>NA</b>	<b>30</b>	<b>✓</b>	<b>✓</b>	<b>9001</b>
Neomycin	N	10		✓	9287 ♦
Netilmicin	NET	10		✓	9170
Netilmicin	NET	30	✓		9033
Nitrofurantoin	F	50			9181
<b>Nitrofurantoin</b>	<b>F</b>	<b>100</b>		<b>✓</b>	<b>9158</b>
Nitrofurantoin	F	300	✓		9034
<b>Nitroxoline</b>	<b>NI</b>	<b>30</b>		<b>✓</b>	<b>9209</b>
<b>Norfloxacin</b>	<b>NOR</b>	<b>10</b>	<b>✓</b>	<b>✓</b>	<b>9035</b>
Novobiocin	NO	5			9117
Novobiocin	NO	30			9063
<b>Ofloxacin</b>	<b>OFX</b>	<b>5</b>	<b>✓</b>	<b>✓</b>	<b>9080</b>
Omadacycline	OMC	30	✓		• 9252 ♦
Oritavancin	ORI	5			• 9201
<b>Oxacillin</b>	<b>OX</b>	<b>1</b>	<b>✓</b>	<b>✓</b>	<b>9036</b>
Oxacillin	OX	5			9135
Oxolinic acid	OA	2			9002
Oxytetracycline	OT	30			9065
Pefloxacin	PEF	5	✓	✓	9091
<b>Penicillin G</b>	<b>P</b>	<b>1 unit</b>		<b>✓</b>	<b>9130</b>
Penicillin G	P	2 units			9127
Penicillin G	P	10 units	✓		9037
Penicillin G 1 + Clavulanic acid 2	PC	2 (1 unit/2)			• 9227 ♦
Penicillin G 1 + Clavulanic acid 5	PC	5 (1 unit/5)			• 9240 ♦
Penicillin G 1 + Clavulanic acid 10	PC	10 (1 unit/10)			• 9241 ♦
Penicillin G 1 + Clavulanic acid 20	PC	20 (1 unit/20)			• 9254 ♦
Phenoxyethylpenicillin	PV	10			9171
Phenylboronic acid	BO				• 9193
Pipemidic acid	PI	20			9003
Piperacillin	PRL	30		✓	9159
Piperacillin	PRL	100	✓		9038
<b>Piperacillin-tazobactam</b>	<b>TZP</b>	<b>36 (30/6)</b>		<b>✓</b>	<b>9160</b>
Piperacillin-tazobactam	TZP	110 (100/10)	✓		9100
Polymyxin B	PB	100 units			9066
Polymyxin B	PB	300 units	✓		9120

Antibiotic discs in cartridge and canister			CLSI <sup>1</sup>	EUCAST <sup>3,4</sup>	Ref.*
Description		µg			
Quinupristin-dalfopristin	QDA	15	✓	✓	9161
Rifampicin	RD	5	✓	✓	9118
Rifampicin	RD	30			9039
Roxithromycin	RXT	15			9060
Sisomicin	SIS	30			9046
Sodium Fusidate	FC	30			9131
Spectinomycin	SPC	100	✓		9067
Streptomycin	S	10	✓		9040
Streptomycin	S	300	✓	✓	9162
Sulbactam	SU	20			9129
Sulfadiazine	SUZ	300			9150
Sulfafurazole	SF	300			9041
Sulfamethoxazole	SMX	50			9084
Sulfamethoxazole	SMX	100			9187
Sulfaprim	SXT	50			9132
Sulfonamide	S3	300	✓		9126
Tedizolid	TZD	2	✓	✓	9243
Tedizolid	TZD	20			9245
Teicoplanin	TEC	30	✓	✓	9050
Telithromycin	TEL	15	✓	✓	9172
Temocillin	TMO	30		✓	9186
Tetracycline	TE	30	✓	✓	9043
Ticarcillin	TC	75	✓	✓	9070
Ticarcillin-clavulanic acid	TTC	85 (75/10)	✓	✓	9096
Tigecycline	TGC	15	✓	✓	9147
Tobramycin	TOB	10	✓	✓	9044
Tobramycin	TOB	30			9163
Trimethoprim	TM	2.5			9083
Trimethoprim	TM	5	✓	✓	9110
Trimethoprim-sulfamethoxazole	SXT	2.5 (0.125/2.375)			9299 ♦
Trimethoprim-sulfamethoxazole	SXT	25 (1.25/23.75)	✓	✓	9042
Vancomycin	VA	5		✓	9164
Vancomycin	VA	30	✓		9045

●, to be stored at -20°C      ♦, not CE marked

**Storage** Unless otherwise indicated, discs may be stored at any temperature between -20°C and +8°C.

**CE Marking** Unless otherwise indicated, all products intended for clinical applications are CE marked according to the European Directive 98/79/EC for In Vitro Diagnostic Medical Devices.

\* **Packaging** 5 cartridges of 50 discs (5x50 discs = 250 discs).

Single cartridges of 50 discs are available: add /1 to the catalogue ref. no. to indicate the relevant item.

Example: ref. 9045/1 indicates Vancomycin 30 µg in one single cartridge of 50 discs.

250 discs in a CANISTER: add /2 to the catalogue ref. no. to indicate the relevant item.

Example: ref. 9045/2 indicates Vancomycin 30 µg in a canister of 250 discs.

**Note that testing and reporting antimicrobial agents for which there are no interpretive criteria are the responsibility of the chief microbiologist and such decisions should be made with input from the infectious disease clinicians.**

For full details on specific organism/agent combinations refer to current CLSI and EUCAST recommendations.

Also see the EUCAST guidance at [http://www.eucast.org/clinical\\_breakpoints/when\\_there\\_are\\_no\\_breakpoints/](http://www.eucast.org/clinical_breakpoints/when_there_are_no_breakpoints/)

<b>Antibiotic discs in cartridge and canister</b>				
<b>Veterinary</b>				
<b>Description</b>		<b>µg</b>	<b>CLSI <sup>7</sup></b>	<b>Ref.*</b>
Aminosidine	AM	60		9301
Apramycin	AP	15	✓	9300
Ceftiofur	FUR	30	✓	9251
Enrofloxacin	ENR	5	✓	9233
Florfenicol	FFC	30	✓	9234
Flumequine	UB	30		9208
Lincomycin-spectinomycin	MSP	100		9302
Marbofloxacin	MAR	5	✓	9297
Neomycin	N	30	✓	9032
Spectinomycin	SPC	100	✓	9067
Spiramycin	SP	100		9088
Tiamulin	T	30	✓	9094
Tilmicosin	TIL	15	✓	9298
Tylosin	TY	30	✓	9082

\* **Packaging** 5 cartridges of 50 discs (5x50 discs = 250 discs).

Single cartridges of 50 discs are available: add /1 to the catalogue ref. no. to indicate the relevant item.  
Example: ref. 9082/1 indicates Tylosin 30 µg in one single cartridge of 50 discs.

250 discs in a CANISTER: add /2 to the catalogue ref. no. to indicate the relevant item.  
Example: ref. 9082/2 indicates Tylosin 30 µg in a canister of 250 discs.



## REFERENCES

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3. The European Committee on Antimicrobial Susceptibility Testing. Breakpoint tables for interpretation of MICs and zone diameters. Version 13.2, 2023. <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 13.2, 2023. <http://www.eucast.org>
5. EUCAST Disk Diffusion Method for Antimicrobial Susceptibility Testing - Version 11.0, January 2023.
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9. EUCAST technical guidance on the use of the combination disk test (CDT) for confirmation of ESBL in Enterobacterales. New disk potencies for combination disks containing cefotaxime and ceftazidime without and with clavulanic acid (February 2019).
10. EUCAST guidelines for detection of resistance mechanisms and specific resistances of clinical and/or epidemiological importance. Version 2.0, July 2017.
11. DIN 58940-2 Medical microbiology - Susceptibility testing of microbial pathogens to antimicrobial agents - Part 2: Active substance carriers for the agar diffusion test; 2007-10.
12. FDA (1978) Codes of Fed.Rebs. 21.Part 460.
13. WHO (1977) Tech rep.Ser.n°610.

**Agar media for AST of bacteria (\*)**

Description		CLSI	EUCAST	Packaging	REF
Mueller Hinton II Agar (cation-adjusted), for non-fastidious bacteria	<b>MHA</b>	✓	✓	20 plates 90 mm 10 plates 140 mm	10031 10231
Mueller Hinton II Agar with 5% Sheep Blood, for fastidious organisms, including <i>Pasteurella multocida</i> and <i>Mannheimia haemolytica</i>	<b>MHA + 5% blood</b>	✓		20 plates 90 mm 10 plates 140 mm	10131 11231
Mueller Hinton Fastidious Agar: MHA with 20 mg/l β-NAD and 5% Horse Blood, for <i>Streptococcus</i> spp., <i>Haemophilus</i> spp., and other fastidious organisms	<b>MH-F</b>		✓	20 plates 90 mm 10 plates 140 mm	10132 11132
Haemophilus Test Agar, for <i>Haemophilus</i> spp.	<b>HTM</b>	✓		20 plates 90 mm	10080
GC Agar Base with 1% defined growth supplement, for <i>Neisseria gonorrhoeae</i>		✓			
Mueller Hinton Chocolate Agar, for <i>Actinobacillus pleuropneumoniae</i> and <i>Histophilus somni</i>	<b>Chocolate MHA</b>	✓		20 plates 90 mm	10335
Fastidious Anaerobe Agar with defibrinated Horse Blood, for selected rapidly growing anaerobic bacteria (i.e. <i>Bacteroides</i> spp., <i>Prevotella</i> spp., <i>F. necrophorum</i> , <i>C. perfringens</i> and <i>C. acnes</i> )	<b>FAA-HB</b>		✓	20 plates 90 mm	10062

\*Available as ready to use plated media in the Liofilchem Catalog.

**NOTE:** MHA, MH-F and FAA-HB into Petri dishes should have a level depth of  $4 \pm 0.5$  mm.

## Find out more on Disc Diffusion Antimicrobial Susceptibility Tests

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