Size: 661 mm x 977 mm

BIOGRAM®

Zone Size Interpretative Chart

As per CLSI (Clinical Laboratory Standards Institute) Guidelines (Formerly NCCLS)
(Based on results obtained using Mueller Hinton Agar)

Diameter of zone of inhibition in mm

Product Code	Antimicrobial Agent	Symbol	Disc Content	*Enterobacterales*			*Salmonella* and *Shigella* spp.			*Pseudomonas aeruginosa*			*Acinetobacter* spp.			*Burkholderia cepacia* complex		
				S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)
PENICILLINS																		
206010530250 206010530500 206010530100	Ampicillin	AMP	10 mcg	17	14-16	13	17	14-16	13	-	-	-	-	-	-	-	-	-
206030420250 206030420500 206030420100	Carbenicillin	CB	100 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206150060250 206150060500 206150060100	Oxacillin	OX	1 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206160570250 206160570500 206160570100	Penicillin	P	10 units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206160590250 206160590500 206160590100	Piperacillin	PI	100 mcg	-	-	-	-	-	-	22	18-21	17	21	18-20	17	-	-	-
206200610250 206200610500 206200610100	Ticarcillin	TI	75 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
β-LACTAM COMBINATION																		
206010550250 206010550500 206010550100	Amoxicillin/ Clavulanate	AMC	20/10 mcg	18	14-17	13	-	-	-	-	-	-	-	-	-	-	-	-
206010540250 206010540500 206010540100	Ampicillin/ Sulbactam	A/S	10/10 mcg	15	12-14	11	-	-	-	-	-	-	22	17-21	16	-	-	-
206031210250 206031210500 206031210100	Ceftazidime/ Avibactam	CZA	30/ 20 mcg	21	-	20	-	-	-	21	-	20	-	-	-	-	-	-
206031350250 206031350500 206031350100	Cefepime/ Enmetazobactam	FPE	30/ 20 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206160600250 206160600500 206160600100	Piperacillin/ Tazobactam	PTZ	100/ 10 mcg	25	21-24 SDD	20	-	-	-	22	18-21	17	21	18-20	17	-	-	-
206200620250 206200620500 206200620100	Ticarcillin/ Clavulanate	TCC	75/10 mcg	20	15-19	14	-	-	-	24	16-23	15	20	15-19	14	-	-	-
206011170250 206011170500 206011170100	Aztreonam/ Avibactam	AZA	30/20 mcg	25	22-24	21	-	-	-	-	-	-	-	-	-	-	-	-
CEPHEMS																		
206030430250 206030430500 206030430100	Cefaclor	CF	30 mcg	18(O)	15-17 (O)	14(O)	-	-	-	-	-	-	-	-	-	-	-	-
206030440250 206030440500 206030440100	Cefazolin	CZ	30 mcg	23(P) 15(O)	20-22(P) -(O)	19(P) 14(O)	-	-	-	-	-	-	-	-	-	-	-	-
206030450250 206030450500 206030450100	Cefdinir	CDR	5 mcg	20(O)	17-19 (O)	16(O)	-	-	-	-	-	-	-	-	-	-	-	-
206030460250 206030460500 206030460100	Cefepime	CPM	30 mcg	25	19-24 SDD	18	-	-	-	18	15-17	14	18	15-17	14	-	-	-
206030470250 206030470500 206030470100	Cefixime	CFM	5 mcg	19(O)	16-18 (O)	15(O)	-	-	-	-	-	-	-	-	-	-	-	-
206030490250 206030490500 206030490100	Cefotaxime (Cephotaxime)	CTX	30 mcg	26	23-25	22	26	23-25	22	-	-	-	23	15-22	14	-	-	-
206030510250 206030510500 206030510100	Cefoxitin	CX	30 mcg	18	15-17	14	-	-	-	-	-	-	-	-	-	-	-	-
206030480250 206030480500 206030480100	Cefoperazone	CPZ	75 mcg	21	16-20	15	-	-	-	-	-	-	-	-	-	-	-	-
206030500250 206030500500 206030500100	Cefpodoxime	CPD	10 mcg	21(O)	18-20 (O)	17(O)	-	-	-	-	-	-	-	-	-	-	-	-
206030520250 206030520500 206030520100	Cefprozil	CPR	30 mcg	18(O)	15-17 (O)	14(O)	-	-	-	-	-	-	-	-	-	-	-	-
206030550250 206030550500 206030550100	Ceftriaxone	CTR	30 mcg	23	20-22	19	23	20-22	19	-	-	-	21	14-20	13	-	-	-
206030530250 206030530500 206030530100	Ceftazidime	CAZ	30 mcg	21	18-20	17	-	-	-	18	15-17	14	18	15-17	14	-	-	-
206030540250 206030540500 206030540100	Ceftizoxime	CZX	30 mcg	25	22-24	21	-	-	-	-	-	-	-	-	-	-	-	-
206030560250 206030560500 206030560100	Cefuroxime	CXM	30 mcg	18(P) 23(O)	15-17(P) 15-22(O)	14(P) 14(O)	-	-	-	-	-	-	-	-	-	-	-	-
206030570250 206030570500 206030570100	Cephalothin	CEP	30 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MONOBACTAMS																		
206010570250 206010570500 206010570100	Aztreonam	AT	30 mcg	21	18-20	17	-	-	-	22	16-21	15	-	-	-	-	-	-
CARBAPENEMS																		
206040270250 206040270500 206040270100	Doripenem	DOR	10 mcg	23	20-22	19	-	-	-	19	16-18	15	18	15-17	14	-	-	-
206050330250 206050330500 206050330100	Ertapenem	ETP	10 mcg	22	19-21	18	22	19-21	18	-	-	-	-	-	-	-	-	-
206060260250 206060260500 206060260100	Faropenem	FAR	5 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206090120250 206090120500 206090120100	Imipenem	IPM	10 mcg	23	20-22	19	23	20-22	19	19	16-18	15	22	19-21	18	-	-	-
206131030250 206131030500 206131030100	Meropenem	MRP	10mcg	23	20-22	19	23	20-22	19	19	16-18	15	18	15-17	14	-	-	-
GLYCOPEPTIDES																		
206200590250 206200590500 206200590100	Teicoplanin	TEI	30 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206220150250 206220150500 206220150100	Vancomycin	VA	30 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LIPOPEPTIDES																		
206030620250 206030620500 206030620100	Colistin (Methane Sulfonate)	CL	10 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206160610250 206160610500 206160610100	Polymyxin B	PB	300 units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMINOGLYCOSIDES																		
206010520250 206010520500 206010520100	Amikacin	AK	30 mcg	20	17-19	16	-	-	-	17	15-16	14	20	17-19	16	-	-	-
206070230250 206070230500 206070230100	Gentamicin	GEN	10 mcg	18	15-17	14	-	-	-	-	-	-	19	14-18	13	-	-	-
206070240250 206070240500 206070240100	Gentamicin	HLG	120 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206110100250 206110100500 206110100100	Kanamycin	K	30 mcg	18	14-17	13	-	-	-	-	-	-	-	-	-	-	-	-
206140230250 206140230500 206140230100	Netilmicin	NET	30 mcg	15	13-14	12	-	-	-	15	13-14	12	-	-	-	-	-	-
206191150250 206191150500 206191150100	Streptomycin	S	10 mcg	15	12-14	11	-	-	-	-	-	-	-	-	-	-	-	-
206191160250 206191160500 206191160100	Streptomycin	HLS	300 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206200640250 206200640500 206200640100	Tobramycin	TOB	10 mcg	17	13-16	12	-	-	-	19	13-18	12	17	13-16	12	-	-	-
206161470250 206161470500 206161470100	Plazomicin	PLZ	30 mcg	18	15-17	14	-	-	-	-	-	-	-	-	-	-	-	-
MACROLIDES																		
206010560250 206010560500 206010560100	Azithromycin	AZM	15 mcg	-	-	-	16 13	11-15 (*Shigella* spp. only) - (*S. enterica* serovar Typhi)	10 12	-	-	-	-	-	-	-	-	-
206030600250 206030600500 206030600100	Clarithromycin	CLR	15 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206050340250 206050340500 206050340100	Erythromycin	E	15 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TETRACYCLINES																		
206040280250 206040280500 206040280100	Doxycycline	DOX	30 mcg	14	11-13	10	14	11-13	10	-	-	-	-	-	-	-	-	-
206131040250 206131040500 206131040100	Minocycline	MI	30 mcg	16	13-15	12	16	13-15	12	-	-	-	22	18-21	17	-	-	-
206200600250 206200600500 206200600100	Tetracycline	TE	30 mcg	15	12-14	11	15	12-14	11	-	-	-	-	-	-	-	-	-
206200630250 206200630500 206200630100	Tigecycline	TGC	15 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QUINOLONES AND FLUROQUINOLONES																		
206030590250 206030590500 206030590100	Ciprofloxacin	CIP	5 mcg	26	22-25	21	31 26	21-30 (*Salmonella* spp. only) 22-25 (*Shigella* spp. only)	20 21	25	19-24	18	21	16-20	15	-	-	-
206070360250 206070360500 206070360100	Gatifloxacin	GAT	5 mcg	18	15-17	14	-	-	-	18	15-17	14	18	15-17	14	-	-	-
206120430250 206120430500 206120430100	Levofloxacin	LE	5 mcg	21	17-20	16	21	17-20 (*Shigella* spp. only)	16	22	15-21	14	17	14-16	13	-	-	-
206120450250 206120450500 206120450100	Lomefloxacin	LOM	10mcg	22	19-21	18	-	-	-	22	19-21	18	-	-	-	-	-	-
206131050250 206131050500 206131050100	Moxifloxacin	MXF	5 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206140220250 206140220500 206140220100	Nalidixic Acid	NA	30 mcg	19	14-18	13	-	-	-	-	-	-	-	-	-	-	-	-
206140290250 206140290500 206140290100	Norfloxacin	NX	10 mcg	17	13-16	12	-	-	-	17	13-16	12	-	-	-	-	-	-
206150050250 206150050500 206150050100	Ofloxacin	OF	5 mcg	16	13-15	12	16	13-15 (*Shigella* spp. only)	12	16	13-15	12	-	-	-	-	-	-
206160580250 206160580500 206160580100	Pefloxacin	PF	5 mcg	-	-	-	24	- (*Salmonella* spp.)	23	-	-	-	-	-	-	-	-	-
206160620250 206160620500 206160620100	Prulifloxacin (Ulifloxacin)	PRU	5 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206191130250 206191130500 206191130100	Sparfloxacin	SPX	5 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FOLATE PATHWAY ANTAGONISTS																		
206200650250 206200650500 206200650100	Trimethoprim	TR	5 mcg	16	11-15	10	-	-	-	-	-	-	-	-	-	-	-	-
206200660250 206200660500 206200660100	Trimethoprim/ Sulphamethoxazole	COT	1.25 / 23.75 mcg	16	11-15	10	16	11-15	10	-	-	-	16	11-15	10	-	-	-
PHENICOLS																		
206030580250 206030580500 206030580100	Chloramphenicol	C	30 mcg	18	13-17	12	18	13-17	12	-	-	-	-	-	-	-	-	-
ANSAMYCINS																		
206180280250 206180280500 206180280100	Rifampin	RIF	5 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FOSFOMYCINS																		
206060280250 206060280500 206060280100	Fosfomycin	FO	200 mcg	16	13-15	12	-	-	-	-	-	-	-	-	-	-	-	-
NITROFURANS																		
206140240250 206140240500 206140240100	Nitrofurantoin	NIT	300 mcg	17	15-16	14	-	-	-	-	-	-	-	-	-	-	-	-
LINCOSAMIDES																		
206030610250 206030610500 206030610100	Clindamycin	CD	2 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OXAZOLIDINONES																		
206120440250 206120440500 206120440100	Linezolid	LZ	30 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206201100250 206201100500 206201100100	Tedizolid	TZD	2 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMINOCYCLITOLS																		
206191140250 206191140500 206191140100	Spectinomycin	SPT	100 mcg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

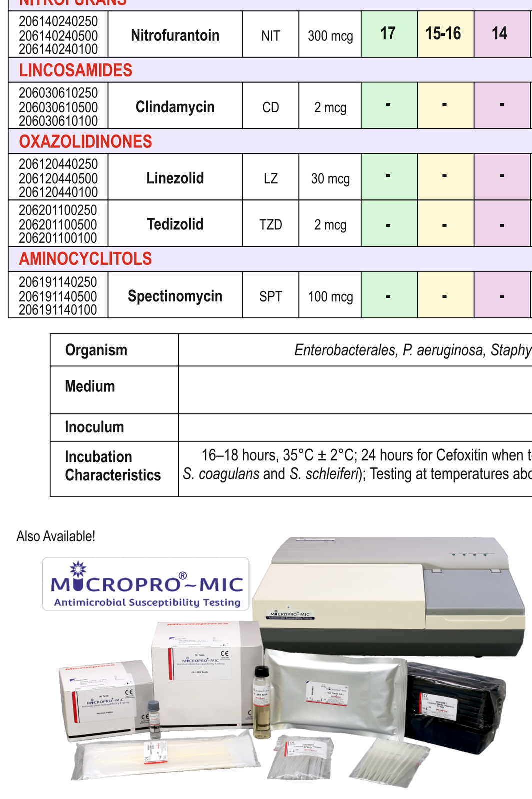
Antimicrobial Agent	Symbol	*Stenotrophomonas maltophilia*			*Staphylococcus* spp.			*Enterococcus* spp.			*Haemophilus influenzae*/ *Haemophilus parainfluenzae*			*Neisseria gonorrhoeae*		
		S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)
PENICILLINS																
Ampicillin	AMP	-	-	-	-	-	-	17	-	16	22	19-21	18	-	-	-
Carbenicillin	CB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxacillin	OX	-	-	-	18#	-	17#	-	-	-	-	-	-	-	-	-
Penicillin	P	-	-	-	29	-	28	15	-	14	-	-	-	47	27-46	26
Piperacillin	PI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ticarcillin	TI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
β-LACTAM COMBINATION																
Amoxicillin/ Clavulanate	AMC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ampicillin/ Sulbactam	A/S	-	-	-	-	-	-	-	-	-	20	-	19	-	-	-
Ceftazidime/ Avibactam	CZA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cefepime/ Enmetazobactam	FPE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Piperacillin/ Tazobactam	PTZ	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-
Ticarcillin/ Clavulanate	TCC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aztreonam/ Avibactam	AZA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CEPHEMS																
Cefaclor	CF	-	-	-	-	-	-	-	-	-	20(O)	17-19 (O)	16(O)	-	-	-
Cefazolin	CZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cefdinir	CDR	-	-	-	-	-	-	-	-	-	20(O)	-	-	-	-	-
Cefepime	CPM	-	-	-	-	-	-	-	-	-	26	-	-	31	-	-
Cefixime	CFM	-	-	-	-	-	-	-	-	-	21(O)	-	-	-	-	-
Cefotaxime (Cephotaxime)	CTX	-	-	-	-	-	-	-	-	-	26	-	-	31	-	-
Cefoxitin	CX	-	-	-	25* 22®	- -	24* 21®	-	-	-	-	-	-	28	24-27	23
Cefoperazone	CPZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cefpodoxime	CPD	-	-	-	-	-	-	-	-	-	21(O)	-	-	29(O)	-	-
Cefprozil	CPR	-	-	-	-	-	-	-	-	-	18(O)	15-17 (O)	14(O)	-	-	-
Ceftriaxone	CTR	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-
Ceftazidime	CAZ	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-
Ceftizoxime	CZX	-	-	-	-	-	-	-	-	-	26	-	-	38	-	-
Cefuroxime	CXM	-	-	-	-	-	-	-	-	-	20	17-19	16	-	-	-
Cephalothin	CEP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MONOBACTAMS																
Aztreonam	AT	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-
CARBAPENEMS																
Doripenem	DOR	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-
Ertapenem	ETP	-	-	-	-	-	-	-	-	-	19	-	-	-	-	-
Faropenem	FAR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Imipenem	IPM	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-
Meropenem	MRP	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-
GLYCOPEPTIDES																
Teicoplanin	TEI	-	-	-	-	-	-	14	11-13	10	-	-	-	-	-	-
Vancomycin	VA	-	-	-	-	-	-	17	15-16	14	-	-	-	-	-	-
LIPOPEPTIDES																
Colistin (Methane Sulfonate)	CL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polymyxin B	PB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMINOGLYCOSIDES																
Amikacin	AK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gentamicin	GEN	-	-	-	15	13-14	12	-	-	-	-	-	-	-	-	-
Gentamicin	HLG	-	-	-	-	-	-	10	7-9	6	-	-	-	-	-	-
Kanamycin	K	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Netilmicin	NET	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Streptomycin	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Streptomycin	HLS	-	-	-	-	-	-	10	7-9	6	-	-	-	-	-	-
Tobramycin	TOB	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plazomicin	PLZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MACROLIDES																
Azithromycin	AZM	-	-	-	18	14-17	13	-	-	-	12	-	-	30	-	-
Clarithromycin	CLR	-	-	-	18	14-17	13	-	-	-	13	11-12	10	-	-	-
Erythromycin	E	-	-	-	23	14-22	13	23	14-22	13	-	-	-	-	-	-
TETRACYCLINES																
Doxycycline	DOX	-	-	-	16	13-15	12	16	13-15	12	-	-	-	-	-	-
Minocycline	MI	26	21-25	20	19	15-18	14	19	15-18	14	-	-	-	-	-	-
Tetracycline	TE	-	-	-	19	15-18	14	19	15-18	14	29	26-28	25	38	31-37	30
Tigecycline	TGC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QUINOLONES AND FLUROQUINOLONES																
Ciprofloxacin	CIP	-	-	-	21	16-20	15	21	16-20	15	21	-	-	41	28-40	27
Gatifloxacin	GAT	-	-	-	23	20-22	19	18	15-17	14	18	-	-	-	-	-
Levofloxacin	LE	17	14-16	13	19	16-18	15	17	14-16	13	17	-	-	-	-	-
Lomefloxacin	LOM	-	-	-	22	19-21	18	-	-	-	22	-	-	-	-	-
Moxifloxacin	MXF	-	-	-	24	21-23	20	-	-	-	18	-	-	-	-	-
Nalidixic Acid	NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norfloxacin	NX	-	-	-	17	13-16	12	17	13-16	12	-	-	-	-	-	-
Ofloxacin	OF	-	-	-	18	15-17	14	-	-	-	16	-	-	-	-	-
Pefloxacin	PF	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prulifloxacin (Ulifloxacin)	PRU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sparfloxacin	SPX	-	-	-	19	16-18	15	-	-	-	-	-	-	-	-	-
FOLATE PATHWAY ANTAGONISTS																
Trimethoprim	TR	-	-	-	16	11-15	10	-	-	-	-	-	-	-	-	-
Trimethoprim/ Sulphamethoxazole	COT	16	11-15	10	16	11-15	10	-	-	-	16	11-15	10	-	-	-
PHENICOLS																
Chloramphenicol	C	-	-	-	18	13-17	12	18	13-17	12	29	26-28	25	-	-	-
ANSAMYCINS																
Rifampin	RIF	-	-	-	20	17-19	16	20	17-19	16	20	17-19	16	-	-	-
FOSFOMYCINS																
Fosfomycin	FO	-	-	-	-	-	-	16	13-15	12	-	-	-	-	-	-
NITROFURANS																
Nitrofurantoin	NIT	-	-	-	17	15-16	14	17	15-16	14	-	-	-	-	-	-
LINCOSAMIDES																
Clindamycin	CD	-	-	-	21	15-20	14	-	-	-	-	-	-	-	-	-
OXAZOLIDINONES																
Linezolid	LZ	-	-	-	26	23-25	22	23	21-22	20	-	-	-	-	-	-
Tedizolid	TZD	-	-	-	19	16-18	15	-	-	-	-	-	-	-	-	-
AMINOCYCLITOLS																
Spectinomycin	SPT	-	-	-	-	-	-	-	-	-	-	-	-	18	15-17	14

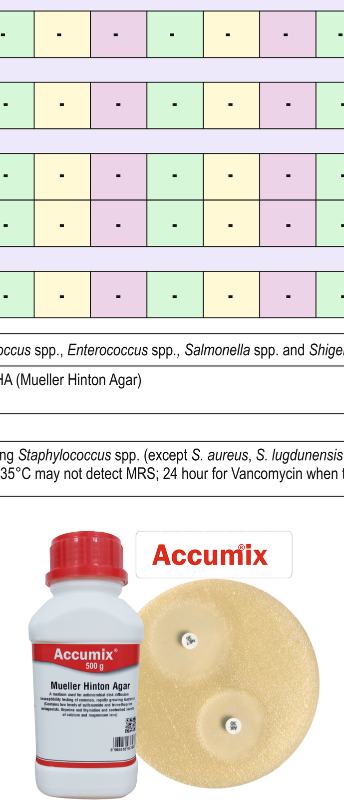
Antimicrobial Agent	Symbol	*Streptococcus pneumoniae*			*Streptococcus* spp. β-hemolytic group			*Streptococcus* spp. Viridans group			*Neisseria meningitidis*		
		S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)	S (≥)	I	R (≤)
PENICILLINS													
Ampicillin	AMP	-	-	-	24	-	-	-	-	-	-	-	-
Carbenicillin	CB	-	-	-	-	-	-	-	-	-	-	-	-
Oxacillin	OX	20	-	-	-	-	-	-	-	-	-	-	-
Penicillin	P	-	-	-	24	-	-	-	-	-	-	-	-
Piperacillin	PI	-	-	-	-	-	-	-	-	-	-	-	-
Ticarcillin	TI	-	-	-	-	-	-	-	-	-	-	-	-
β-LACTAM COMBINATION													
Amoxicillin/ Clavulanate	AMC	-	-	-	-	-	-	-	-	-	-	-	-
Ampicillin/ Sulbactam	A/S	-	-	-	-	-	-	-	-	-	-	-	-
Ceftazidime/ Avibactam	CZA	-	-	-	-	-	-	-	-	-	-	-	-
Cefepime/ Enmetazobactam	FPE	-	-	-	-	-	-	-	-	-	-	-	-
Piperacillin/ Tazobactam	PTZ	-	-	-	-	-	-	-	-	-	-	-	-
Ticarcillin/ Clavulanate	TCC	-	-	-	-	-	-	-	-	-	-	-	-
Aztreonam/ Avibactam	AZA	-	-	-	-	-	-	-	-	-	-	-	-
CEPHEMS													
Cefaclor	CF	-	-	-	-	-	-	-	-	-	-	-	-
Cefazolin	CZ	-	-	-	-	-	-	-	-	-	-	-	-
Cefdinir	CDR	-	-	-	-	-	-	-	-	-	-	-	-
Cefepime	CPM	-	-	-	24	-	-	24	22-23	21	-	-	-
Cefixime	CFM	-	-	-	-	-	-	-	-	-	-	-	-
Cefotaxime (Cephotaxime)	CTX	-	-	-	24	-	-	28	26-27	25	34	-	-
Cefoxitin	CX	-	-	-	-	-	-	-	-	-	-	-	-
Cefoperazone	CPZ	-	-	-	-	-	-	-	-	-	-	-	-
Cefpodoxime	CPD	-	-	-	-	-	-	-	-	-	-	-	-
Cefprozil	CPR	-	-	-	-	-	-	-	-	-	-	-	-
Ceftriaxone	CTR	-	-	-	24	-	-	27	25-26	24	34	-	-
Ceftazidime	CAZ	-	-	-	-	-	-	-	-	-	-	-	-
Ceftizoxime	CZX	-	-	-	-	-	-	-	-	-	-	-	-
Cefuroxime	CXM	-	-	-	-	-	-	-	-	-	-	-	-
Cephalothin	CEP	-	-	-	-	-	-	-	-	-	-	-	-
MONOBACTAMS													
Aztreonam	AT	-	-	-	-	-	-	-	-	-	-	-	-
CARBAPENEMS													
Doripenem	DOR	-	-	-	-	-	-	-	-	-	-	-	-
Ertapenem	ETP	-	-	-	-	-	-	-	-	-	-	-	-
Faropenem	FAR	-	-	-	-	-	-	-	-	-	-	-	-
Imipenem	IPM	-	-	-	-	-	-	-	-	-	-	-	-
Meropenem	MRP	-	-	-	-	-	-	-	-	-	30	-	-
GLYCOPEPTIDES													
Teicoplanin	TEI	-	-	-	-	-	-	-	-	-	-	-	-
Vancomycin	VA	17	-	-	17	-	-	17	-	-	-	-	-
LIPOPEPTIDES													
Colistin (Methane Sulfonate)	CL	-	-	-	-	-	-	-	-	-	-	-	-
Polymyxin B	PB	-	-	-	-	-	-	-	-	-	-	-	-
AMINOGLYCOSIDES													
Amikacin	AK	-	-	-	-	-	-	-	-	-	-	-	-
Gentamicin	GEN	-	-	-	-	-	-	-	-	-	-	-	-
Gentamicin	HLG	-	-	-	-	-	-	-	-	-	-	-	-
Kanamycin	K	-	-	-	-	-	-	-	-	-	-	-	-
Netilmicin	NET	-	-	-	-	-	-	-	-	-	-	-	-
Streptomycin	S	-	-	-	-	-	-	-	-	-	-	-	-
Streptomycin	HLS	-	-	-	-	-	-	-	-	-	-	-	-
Tobramycin	TOB	-	-	-	-	-	-	-	-	-	-	-	-
Plazomicin	PLZ	-	-	-	-	-	-	-	-	-	-	-	-
MACROLIDES													
Azithromycin	AZM	18	14-17	13	18	14-17	13	18	14-17	13	20	-	-
Clarithromycin	CLR	21	17-20	16	21	17-20	16	21	17-20	16	-	-	-
Erythromycin	E	21	16-20	15	21	16-20	15	21	16-20	15	-	-	-
TETRACYCLINES													
Doxycycline	DOX	28	25-27	24	-	-	-	-	-	-	-	-	-
Minocycline	MI	-	-	-	-	-	-	-	-	-	26	-	-
Tetracycline	TE	28	25-27	24	23	19-22	18	23	19-22	18	-	-	-
Tigecycline	TGC	-	-	-	-	-	-	-	-	-	-	-	-
QUINOLONES AND FLUROQUINOLONES													
Ciprofloxacin	CIP	-	-	-	-	-	-	-	-	-	35	33-34	32
Gatifloxacin	GAT	21	18-20	17	21	18-20	17	21	18-20	17	-	-	-
Levofloxacin	LE	17	14-16	13	17	14-16	13	17	14-16	13	-	-	-
Lomefloxacin	LOM	-	-	-	-	-	-	-	-	-	-	-	-
Moxifloxacin	MXF	18	15-17	14	-	-	-	-	-	-	-	-	-
Nalidixic Acid	NA	-	-	-	-	-	-	-	-	-	-	-	-
Norfloxacin	NX	-	-	-	-	-	-	-	-	-	-	-	-
Ofloxacin	OF	16	13-15	12	16	13-15	12	16	13-15	12	-	-	-
Pefloxacin	PF	-	-	-	-	-	-	-	-	-	-	-	-
Prulifloxacin (Ulifloxacin)	PRU	-	-	-	-	-	-	-	-	-	-	-	-
Sparfloxacin	SPX	19	16-18	15	-	-	-	-	-	-	-	-	-
FOLATE PATHWAY ANTAGONISTS													
Trimethoprim	TR	-	-	-	-	-	-	-	-	-	-	-	-
Trimethoprim/ Sulphamethoxazole	COT	19	16-18	15	-	-	-	-	-	-	30	26-29	25
PHENICOLS													
Chloramphenicol	C	21	-	20	21	18-20	17	21	18-20	17	26	20-25	19
ANSAMYCINS													
Rifampin	RIF	19	17-18	16	-	-	-	-	-	-	25	20-24	19
FOSFOMYCINS													
Fosfomycin	FO	-	-	-	-	-	-	-	-	-	-	-	-
NITROFURANS													
Nitrofurantoin	NIT	-	-	-	-	-	-	-	-	-	-	-	-
LINCOSAMIDES													
Clindamycin	CD	19	16-18	15	19	16-18	15	19	16-18	15	-	-	-
OXAZOLIDINONES													
Linezolid	LZ	21	-	-	21	-	-	21	-	-	-	-	-
Tedizolid	TZD	-	-	-	15	-	-	18	-	-	-	-	-
AMINOCYCLITOLS													
Spectinomycin	SPT	-	-	-	-	-	-	-	-	-	-	-	-

Antimicrobial Agent	Symbol	Quality Control, Limits									
		E. coli ATCC® 25922	*S. aureus* ATCC® 25923	*P. aeruginosa* ATCC® 27853	*E. coli* ATCC® 35218	*H. influenzae* ATCC® 49247	*H. influenzae* ATCC® 49766	*N. gonorrhoeae* ATCC® 49226	*S. pneumoniae* ATCC® 49619	*E. faecalis* ATCC® 29212	*K. pneumoniae* ATCC® 700603
PENICILLINS											
Ampicillin	AMP	15-22	27-35	-	6	13-21	-	-	30-36	-	-
Carbenicillin	CB	23-29	-	18-24	-	-	-	-	-	-	-
Oxacillin	OX	-	18-24	-	-	-	-	-	≤12	-	-
Penicillin	P	-	26-37	-	-	-	-	26-34	24-30	-	-
Piperacillin	PI	24-30	-	25-33	12-18	-	-	-	-	-	-
Ticarcillin	TI	24-30	-	21-27	6	-	-	-	-	-	-
β-LACTAM COMBINATION											
Amoxicillin/ Clavulanate	AMC	18-24	28-36	-	17-22	15-23	-	-	-	-	-
Ampicillin/ Sulbactam	A/S	19-24	29-37	-	13-19	14-22	-	-	-	-	-
Ceftazidime/ Avibactam	CZA	27-35	16-22	25-31	28-35	28-34	-	-	23-31	-	21-27
Cefepime/ Enmetazobactam	FPE	32-38	-	26-32	32-38	-	-	-	-	-	26-32
Piperacillin/ Tazobactam	PTZ	24-30	27-36	25-33	24-30	33-38	-	-	-	-	-
Ticarcillin/ Clavulanate	TCC	24-30	29-37	20-28	21-25	-	-	-	-	-	-
Aztreonam/ Avibactam	AZA	32-38	-	24-30	31-38	-	-	-	-	-	26-32
CEPHEMS											
Cefaclor	CF	23-27	27-31	-	-	-	25-31	-	24-32	-	-
Cefazolin	CZ	21-27	29-35	-	-	-	-	-	-	-	-
Cefdinir	CDR	24-28	25-32	-	-	-	24-31	40-49	26-31	-	-
Cefepime	CPM	31-37	23-29	25-31	31-37	25-31	-	37-46	28-35	-	23-29
Cefixime	CFM	20-26	-	-	-	25-33	-	37-45	16-23	-	-
Cefotaxime (Cephotaxime)	CTX	29-35	25-31	18-22	-	31-39	-	38-48	31-39	-	17-25
Cefoxitin	CX	23-29	23-29	-	-	-	-	33-41	-	-	-
Cefoperazone	CPZ	28-34	24-33	23-29	-	-	-	-	-	-	-
Cefpodoxime	CPD	23-28	19-25	-	-	25-31	-	35-43	28-34	-	9-16
Cefprozil	CPR	21-27	27-33	-	-	-	20-27	-	25-32	-	-
Ceftriaxone	CTR	29-35	22-28	17-23	-	31-39	-	39-51	30-35	-	16-24
Ceftazidime	CAZ	25-32	16-20	22-29	-	27-35	-	35-43	-	-	10-18
Ceftizoxime	CZX	30-36	27-35	12-17	-	29-39	-	42-51	28-34	-	-
Cefuroxime	CXM	20-26	27-35	-	-	-	28-36	33-41	-	-	-
Cephalothin	CEP	15-21	29-37	-	-	-	-	-	26-32	-	-
MONOBACTAMS											
Aztreonam	AT	28-36	-	23-29	31-38	30-38	-	-	-	-	-
CARBAPENEMS											
Doripenem	DOR	27-35	33-42	28-35	-	21-31	-	-	30-38	-	-
Ertapenem	ETP	29-36	24-31	13-21	-	20-28	27-33	-	28-35	-	-
Faropenem	FAR	20-26	27-34	-	-	15-22	-	-	27-35	-	-
Imipenem	IPM	26-32	-	20-28	-	21-29	-	-	-	-	25-33
Meropenem	MRP	28-35	29-37	27-33	-	20-28	-	-	28-35	-	-
GLYCOPEPTIDES											
Teicoplanin	TEI	-	15-21	-	-	-	-	-	-	-	-
Vancomycin	VA	-	17-21	-	-	-	-	-	20-27	-	-
LIPOPEPTIDES											
Colistin (Methane Sulfonate)	CL	11-17	-	11-17	-	-	-	-	-	-	-
Polymyxin B	PB	13-19	-	14-18	-	-	-	-	-	-	-
AMINOGLYCOSIDES											
Amikacin	AK	19-26	20-26	20-26	-	-	-	-	-	-	-
Gentamicin	GEN	19-26	19-27	17-23	-	-	-	15-20	-	-	-
Gentamicin	HLG	-	-	-	-	-	-	-	-	16-23	-
Kanamycin	K	17-25	19-26	-	-	-	-	-	-	-	-
Netilmicin	NET	22-30	22-31	17-23	-	-	-	-	-	-	-
Streptomycin	S	12-20	14-22	-	-	-	-	-	-	-	-
Streptomycin	HLS	-	-	-	-	-	-	-	-	14-20	-
Tobramycin	TOB	18-26	19-29	20-26	-	-	-	-	-	-	-
Plazomicin	PLZ	21-27	19-25	15-21	-	-	-	-	-	-	-
MACROLIDES											
Azithromycin	AZM	-	21-26	-	-	13-21	-	30-38	19-25	-	-
Clarithromycin	CLR	-	26-32	-	-	11-17	-	-	25-31	-	-
Erythromycin	E	-	22-30	-	-	-	-	-	25-30	-	-
TETRACYCLINES											
Doxycycline	DOX	18-24	23-29	-	-	-	-	-	25-34	-	-
Minocycline	MI	20-26	25-30	-	-	-	-	-	-	-	-
Tetracycline	TE	18-25	24-30	-	-	14-22	-	30-42	27-31	-	-
Tigecycline	TGC	20-27	20-25	9-13	-	23-31	-	30-40	23-29	-	-
QUINOLONES AND FLUROQUINOLONES											
Ciprofloxacin	CIP	29-38	22-30	25-33	-	34-42	-	48-58	-	-	-
Gatifloxacin	GAT	30-37	27-33	20-28	-	33-41	-	45-56	24-31	-	-
Levofloxacin	LE	29-37	25-30	19-26	-	32-40	-	-	20-25	-	-
Lomefloxacin	LOM	27-33	23-29	22-28	-	33-41	-	45-54	-	-	-
Moxifloxacin	MXF	28-35	28-35	17-25	-	31-39	-	-	25-31	-	-
Nalidixic Acid	NA	22-28	-	-	-	-	-	-	-	-	-
Norfloxacin	NX	28-35	17-28	22-29	-	-	-	-	15-21	-	-
Ofloxacin	OF	29-33	24-28	17-21	-	31-40	-	43-51	16-21	-	-
Pefloxacin	PF	25-33	-	-	-	-	-	-	-	-	-
Prulifloxacin (Ulifloxacin)	PRU	32-38	20-26	27-33	-	-	-	-	-	-	-
Sparfloxacin	SPX	30-38	27-33	21-29	-	32-40	-	43-51	21-27	-	-
FOLATE PATHWAY ANTAGONISTS											
Trimethoprim	TR	21-28	19-26	-	-	-	-	-	-	-	-
Trimethoprim/ Sulphamethoxazole	COT	23-29	24-32	-	-	24-32	-	-	20-28	-	-
PHENICOLS											
Chloramphenicol	C	21-27	19-26	-	-	31-40	-	-	23-27	-	-
ANSAMYCINS											
Rifampin	RIF	8-10	26-34	-	-	22-30	-	-	25-30	-	-
FOSFOMYCINS											
Fosfomycin	FO	22-30	25-33	-	-	-	-	-	-	-	-
NITROFURANS											
Nitrofurantoin	NIT	20-25	18-22	-	-	-	-	-	23-29	-	-
LINCOSAMIDES											
Clindamycin	CD	-	24-30	-	-	-	-	-	19-25	-	-
OXAZOLIDINONES											
Linezolid	LZ	-	24-30	-	-	-	-	-	25-34	-	-
Tedizolid	TZD	-	19-25	-	-	-	-	-	18-25	14-21	-
AMINOCYCLITOLS											
Spectinomycin	SPT	-	-	-	-	-	-	24-30	-	-	-

Organism	*Enterobacterales*, *P. aeruginosa*, *Staphylococcus* spp., *Enterococcus* spp., *Salmonella* spp. and *Shigella* spp.	*Acinetobacter* spp., *Stenotrophomonas maltophillia*	*Haemophilus influenzae* / *Haemophilus parainfluenzae*	*Neisseria gonorrhoeae*	Streptococci and *Neisseria meningitidis*
Medium	MHA (Mueller Hinton Agar)	MHA (Mueller Hinton Agar)	HTM (Haemophilus Test Medium) [For all agents when testing *H. influenzae* or *H. parainfluenzae*] or MH-F agar (MHA with 5% mechanically defibrinated horse blood and 20 µg/mL NAD) [For selected agents when testing *H. influenzae*]	GC Agar Base and 1% defined growth supplement (The use of a cysteine free growth supplement is not required for disk diffusion testing).	MHA supplemented with 5% defibrinated sheep blood or MH-F agar (MHA with mechanically defibrinated horse blood and 20 µg/mL NAD). MH-F agar for *S. pneumoniae* only.
Inoculum	Direct Colony Suspension equivalent to 0.5 McFarland Standard				
Incubation Characteristics	16–18 hours, 35°C ± 2°C; 24 hours for Cefoxitin when testing *Staphylococcus* spp. (except *S. aureus*, *S. lugdunensis*, *S. pseudintermedius*, *S. coagulans* and *S. schleiferi*); Testing at temperatures above 35°C may not detect MRS; 24 hour for Vancomycin when testing *Enterococcus* spp.	20–24 hours, 35°C ± 2°C	5% CO_2, 16–18 hours, 35°C ± 2°C	5% CO_2, 20–24 hours, 36°C ± 1°C (Do not exceed 37°C)	5% CO_2, 20–24 hours, 35°C ± 2°C

Also Available!





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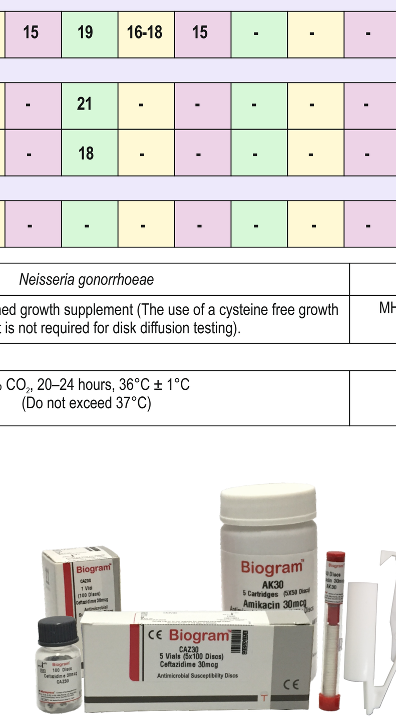

Abbreviations:
R: Resistant; **I:** Intermediate; **S:** Susceptible; **SDD:** Susceptible-Dose Dependent.
#: *Staphylococcus epidermidis*, *S. pseudintermedius*, *S. schleiferi*, *S. coagulans* only;
***:** *Staphylococcus* spp. expect *S. aureus*, *S. lugdunensis*, *S. pseudintermedius*, *S. schleiferi*.
®: *S. aureus* and *S. lugdunensis*. (Surrogate test for Oxacillin)
All the values are in mm.

Bibliography
1. Bauer, Kirby, Sherris and Turck, 1966, Am.J.Clin.Path., 45:493.
2. Performance Standards for Antimicrobial Disk susceptibility Tests, M-100, CLSI 36th Edition, January 2026.