



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Stenotrophomonas maltophilia Catalog Number: 0759 Lot Number: 759-39 Reference Number: ATCC® 17666™* Purity: > 99.9% of Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 3	Expiration Date: 2018/6/30 Release Information: Quality Control Technologist: Mary L Bowman Release Date: 2016/9/6
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Performance	
Macroscopic Features: Medium to large, circular, convex, entire edge, gray, glistening. Microscopic Features: Straight to slightly curved gram negative rod.	Medium: SBAP Method: Gram Stain (1)
ID System: Vitek GN (1) See attached ID System results document.	Other Features/ Challenges: Results (1) Oxidase (Kovacs): negative  Brad Goskowicz, President AUTHORIZED SIGNATURE

Disclaimer: The last digit(s) of the lot number appearing on the packing slip is merely a packaging event number. The lot number displayed on this certificate is the actual base lot number.

Note for Vitek®: Although the Vitek® panel uses many conventional tests, the unique environment of the card, combined with the short incubation period, may produce results that differ from published results obtained by other methods.

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TESTING CERT #2655.01

Microbiologics

bioMerieux Customer: 1012555
System #: 521711

Laboratory Report

Printed Sep 6, 2016 08:41 CDT
Printed by: mlb

Isolate Group: 759 39-1

Bench: MB

Card Type: GN Testing Instrument: 000017919CE3 (15220)

Bionumber: 1022103003540020

Organism Quantity:

Comments:	
	GN QC OK MB 9/6/16

Identification Information	Card:	GN	Lot Number:	241370540	Expires:	Feb 4, 2017 12:00 CST
	Completed:	Sep 1, 2016 17:59 CDT	Status:	Final	Analysis Time:	4.25 hours
Selected Organism	99% Probability Stenotrophomonas maltophilia Bionumber: 1022103003540020 Confidence: Excellent identification					
SRF Organism						
Analysis Organisms and Tests to Separate:						
Analysis Messages:						
Contraindicating Typical Biopattern(s)						

Biochemical Details																	
2	APPA	+	3	ADO	-	4	PyrA	-	5	IARL	-	7	dCEL	-	9	BGAL	-
10	H2S	-	11	BNAG	+	12	AGLTp	-	13	dGLU	-	14	GGT	+	15	OFF	-
17	BGLU	+	18	dMAL	-	19	dMAN	-	20	dMNE	-	21	BXYL	-	22	BAlap	-
23	ProA	+	26	LIP	+	27	PLE	-	29	TyrA	-	31	URE	-	32	dSOR	-
33	SAC	-	34	dTAG	-	35	dTRE	-	36	CIT	+	37	MNT	+	39	5KG	-
40	ILATk	+	41	AGLU	-	42	SUCT	+	43	NAGA	-	44	AGAL	-	45	PHOS	+
46	GlyA	-	47	ODC	-	48	LDC	-	53	IHISa	-	56	CMT	-	57	BGUR	-
58	O129R	-	59	GGAA	+	61	IMLTa	-	62	ELLM	-	64	ILATa	-			

Installed VITEK 2 Systems Version: 07.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Bacillus licheniformis Catalog Number: 0812 Lot Number: 812-52 Reference Number: ATCC® 12759™* Purity: < 0.1% Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 4	Expiration Date: 2018/5/31 Release Information: Quality Control Technologist: Christine Condon Release Date: 2016/8/5
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Performance	
Macroscopic Features: Large, light gray to colorless colonies. Some colonies are dry and wrinkled with yellow color developing on the top of the colonies and the other type is smoother and mucoid. Culture is weakly beta hemolytic.	Medium: SBAP
Microscopic Features: Straight gram positive rod with an ellipsoidal, central spore.	Method: Gram Stain (1)
ID System: Vitek BCL (1) See attached ID System results document.	Other Features/ Challenges: Results SBAP/35C/AN/24hr: growth  Brad Goskowicz, President AUTHORIZED SIGNATURE

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TESTING CERT #2655.01

bioMerieux Customer: 1012555
System #: 521711

Laboratory Report

Printed Aug 4, 2016 09:51 CDT
Printed by: cmc

Isolate Group: 812 52-1

Bench: CC

Card Type: BCL Testing Instrument: 000017919CE3 (15220)

Bionumber: 1332361757477271

Organism Quantity:

Comments:	

Identification Information	Card:	BCL	Lot Number:	239376120	Expires:	Apr 1, 2017 13:00 CDT
	Completed:	Aug 4, 2016 06:25 CDT	Status:	Final	Analysis Time:	14.00 hours
Selected Organism	92% Probability		Bacillus licheniformis			
	Bionumber:		1332361757477271		Confidence:	Good identification
SRF Organism						
Analysis Organisms and Tests to Separate:						
Analysis Messages:						
Contraindicating Typical Biopattern(s)						
Bacillus licheniformis APPA(1),GLYG(79),IRHA(28),INU(12),						

Biochemical Details																	
1	BXYL	+	3	LysA	-	4	AspA	-	5	LeuA	+	7	PheA	+	8	ProA	-
9	BGAL	+	10	PyrA	+	11	AGAL	(-)	12	AlaA	-	13	TyrA	+	14	BNAG	-
15	APPA	+	18	CDEX	+	19	dGAL	-	21	GLYG	-	22	INO	+	24	MdG	+
25	ELLM	+	26	MdX	-	27	AMAN	-	29	MTE	+	30	GlyA	(+)	31	dMAN	+
32	dMNE	+	34	dMLZ	-	36	NAG	+	37	PLE	+	39	IRHA	+	41	BGLU	+
43	BMAN	-	44	PHC	-	45	PVATE	+	46	AGLU	+	47	dTAG	+	48	dTRE	+
50	INU	+	53	dGLU	+	54	dRIB	+	56	PSCNa	-	58	NaCl 6.5%	+	59	KAN	-
60	OLD	+	61	ESC	+	62	TTZ	+	63	POLYB_R	+						

Installed VITEK 2 Systems Version: 07.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Streptococcus pneumoniae Catalog Number: 0865 Lot Number: 865-34 Reference Number: ATCC® 10015™* Purity: > 99.9% of Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 2	Expiration Date: 2018/8/31 Release Information: Quality Control Technologist: Mary L Bowman Release Date: 2016/11/3
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Performance	
Macroscopic Features: Medium, circular, convex, entire edge, translucent, slightly mucoid, alpha hemolytic.	Medium: CNA
Microscopic Features: Gram positive cocci (lancet to coccoid shaped), typically in pairs, also singly, or short chains.	Method: Gram Stain (1)
ID System: MALDI-TOF See attached ID System results document.	Other Features/ Challenges: Results (1) Catalase (3% Hydrogen Peroxide): negative Optochin differential: Sensitive (6 mm disks >= 14 mm)  Brad Goskowicz, President AUTHORIZED SIGNATURE

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TESTING CERT #2655.01

Bruker Daltonik MALDI Biotyper Classification Results



Meaning of Score Values

Range	Description	Symbols	Color
2.300 ... 3.000	highly probable species identification	(+++)	green
2.000 ... 2.299	secure genus identification, probable species identification	(++)	green
1.700 ... 1.999	probable genus identification	(+)	yellow
0.000 ... 1.699	not reliable identification	(-)	red

Meaning of Consistency Categories (A – C)

Category	Description
A	Species Consistency: The best match was classified as 'green' (see above). Further 'green' matches are of the same species as the first one. Further 'yellow' matches are at least of the same genus as the first one.
B	Genus Consistency: The best match was classified as 'green' or 'yellow' (see above). Further 'green' or 'yellow' matches have at least the same genus as the first one. The conditions of species consistency are not fulfilled.
C	No Consistency: Neither species nor genus consistency (Please check for synonyms of names or microbial mixture).

Analyte Name: Streptococcus pneumoniae

Analyte Description: 0865

Analyte ID: 865-34

Analyte Creation Date/Time: 2016-10-25T15:00:19.492 MB

Applied MSP Library(ies): BDAL, Mycobacteria Library (bead method), Filamentous Fungi Library 1.0, IVD, Listeria

Applied Taxonomy Tree:

Analyte Name	Analyte ID	Organism (best match)	Score Value
G7(+++) (A)	865-34	Streptococcus pneumoniae	2.414

Comments:

Streptococcus mitis / oralis / peroris / pneumoniae / pseudopneumoniae are closely related! The result may be confirmed by a further test, e.g. bile test or optochin test, according to standard clinical microbiological practice.



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Streptococcus pneumoniae Catalog Number: 0947 Lot Number: 947-69 Reference Number: ATCC® 49619™* Purity: > 99.9% of Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 4	Expiration Date: 2018/4/30 Release Information: Quality Control Technologist: Carol J Stanoch Release Date: 2016/7/20
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Performance	
Macroscopic Features: Small to medium, circular, translucent, alpha hemolytic colonies.	Medium: CNA
Microscopic Features: Gram positive, lancet and occasionally ovoid shaped, cocci typically in pairs, also singly, or short chains.	Method: Gram Stain (1)
ID System: Vitek GP (1) See attached ID System results document.	Other Features/ Challenges: Results (1) Catalase (3% Hydrogen Peroxide): negative Optochin differential: Sensitive (6 mm disks: ≥ 14 mm) (1) Oxacillin (1 mcg - Disk Susceptibility): ≤ 12 mm (1) Cefotaxime (30 mcg - Disk Susceptibility): 31 - 39 mm (1) Ceftriaxone (30 mcg - Disk Susceptibility): 30 - 35 mm  Brad Goskowicz, President AUTHORIZED SIGNATURE

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TESTING CERT #2655.01

Microbiologics

bioMerieux Customer: 1012555
System #: 521711

Laboratory Report

Printed Jun 20, 2016 10:06 CDT
Printed by: cjs

Isolate Group: 947 69-1

Bench: CS

Card Type: GP Testing Instrument: 000017919CE3 (15220)

Bionumber: 061111364307530

Organism Quantity:

Comments:	

Identification Information	Card: GP	Lot Number: 242385140	Expires: Jun 30, 2017 13:00 CDT
	Completed: Jun 16, 2016 18:47 CDT	Status: Final	Analysis Time: 6.00 hours
Selected Organism	95% Probability Streptococcus pneumoniae		
	Bionumber: 061111364307530		Confidence: Very good identification
SRF Organism			
Analysis Organisms and Tests to Separate:			
Analysis Messages:			
Contraindicating Typical Biopattern(s)			
Streptococcus pneumoniae PUL(13),SAL(17),			

Biochemical Details																	
2	AMY	-	4	PIPLC	-	5	dXYL	-	8	ADH1	-	9	BGAL	+	11	AGLU	+
13	APPA	+	14	CDEX	-	15	AspA	-	16	BGAR	+	17	AMAN	-	19	PHOS	-
20	LeuA	+	23	ProA	-	24	BGURr	-	25	AGAL	+	26	PyrA	-	27	BGUR	-
28	AlaA	+	29	TyrA	+	30	dSOR	-	31	URE	-	32	POLYB	+	37	dGAL	+
38	dRIB	-	39	ILATk	-	42	LAC	+	44	NAG	+	45	dMAL	+	46	BACI	-
47	NOVO	-	50	NC6.5	-	52	dMAN	-	53	dMNE	+	54	MBdG	+	56	PUL	+
57	dRAF	+	58	O129R	-	59	SAL	+	60	SAC	+	62	dTRE	+	63	ADH2s	-
64	OPTO	-															

Installed VITEK 2 Systems Version: 07.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Streptococcus pyogenes (group A, type 3) Catalog Number: 0979 Lot Number: 979-53 Reference Number: ATCC® 12384™* Purity: > 99.9% of Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 3		Expiration Date: 2018/8/31 Release Information: Quality Control Technologist: Carol J Stanoch Release Date: 2016/11/7
Performance		
Macroscopic Features: Small, circular, translucent/white, slightly mucoid, beta hemolytic colonies. Microscopic Features: Gram positive cocci.	Medium: SBAP Method: Gram Stain (1)	
ID System: MALDI-TOF See attached ID System results document.	Other Features/ Challenges: Results (1) Catalase (3% Hydrogen Peroxide): negative Bacitracin differential: Sensitive  Brad Goskowicz, President AUTHORIZED SIGNATURE	
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Bruker Daltonik MALDI Biotyper Classification Results



Meaning of Score Values

Range	Description	Symbols	Color
2.300 ... 3.000	highly probable species identification	(+++)	green
2.000 ... 2.299	secure genus identification, probable species identification	(++)	green
1.700 ... 1.999	probable genus identification	(+)	yellow
0.000 ... 1.699	not reliable identification	(-)	red

Meaning of Consistency Categories (A – C)

Category	Description
A	Species Consistency: The best match was classified as 'green' (see above). Further 'green' matches are of the same species as the first one. Further 'yellow' matches are at least of the same genus as the first one.
B	Genus Consistency: The best match was classified as 'green' or 'yellow' (see above). Further 'green' or 'yellow' matches have at least the same genus as the first one. The conditions of species consistency are not fulfilled.
C	No Consistency: Neither species nor genus consistency (Please check for synonyms of names or microbial mixture).

Analyte Name: Streptococcus pyogenes (group A, type 3)
 Analyte Description: 0979
 Analyte ID: 979-53
 Analyte Creation Date/Time: 2016-10-27T10:17:01.171 cs
 Applied MSP Library(ies): BDAL, Mycobacteria Library (bead method), Filamentous Fungi Library 1.0, IVD, Listeria
 Applied Taxonomy Tree:

Analyte Name	Analyte ID	Organism (best match)	Score Value
H11 (+++)(A)	979-53	Streptococcus pyogenes	2.3

Comments:

Species canis / dysgalactiae / pyogenes of the genus Streptococcus have very similar patterns: Therefore distinguishing their species is difficult.



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Candida glabrata Catalog Number: 0986 Lot Number: 986-39 Reference Number: ATCC® 66032™* Purity: < 0.1% Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 4	Expiration Date: 2018/1/31 Release Information: Quality Control Technologist: Carol J Stanoch Release Date: 2016/4/6
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Performance	
Macroscopic Features: Small, white, convex, circular colonies. Microscopic Features: Gram positive yeast cells.	Medium: Nutrient Method: Gram Stain (1)
ID System: Vitek YST (1) See attached ID System results document.	Other Features/ Challenges: Results (1) Germ Tube Test: negative (1) Chlamydospore production: negative  Brad Goskowicz, President AUTHORIZED SIGNATURE

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TESTING CERT #2655.01

Microbiologics

bioMerieux Customer: 1012555
System #: 521711

Laboratory Report

Printed Mar 31, 2016 15:31 CDT
Printed by: cjs
Report Version: 2 of 2

Isolate Group: 986 39-1

Bench: CS

Last Updated: Mar 31, 2016 15:31 CDT

By: cjs

Card Type: YST Testing Instrument: 000017919CE3 (15220)

Bionumber: 4400104000205111

Organism Quantity:

Comments:	

Identification Information	Card: YST	Lot Number: 243385220	Expires: Jul 1, 2017 13:00 CDT
	Completed: Mar 30, 2016 03:05 CDT	Status: Final	Analysis Time: 18.25 hours
Selected Organism	94% Probability Candida glabrata Bionumber: 4400104000205111 Confidence: Low discrimination		
SRF Organism			
Analysis Organisms and Tests to Separate: Low Discrimination Organism Candida glabrata dTREF(100), Candida lipolytica dTREF(0),			
Analysis Messages:			
Contraindicating Typical Biopattern(s) Candida glabrata LATa(1),GLYLa(12), Candida lipolytica dTREa(1),			

Biochemical Details																	
3	LysA	-	4	IMLTa	-	5	LeuA	+	7	ARG	(-)	10	ERYa	-	12	GLYLa	+
13	TyrA	-	14	BNAG	-	15	ARBa	-	18	AMYa	-	19	dGALa	-	20	GENa	-
21	dGLUa	+	23	LACa	-	24	MAdGa	-	26	dCELa	-	27	GGT	-	28	dMALa	-
29	dRAFa	-	30	NAGA1	-	32	dMNEa	+	33	dMELa	-	34	dMLZa	-	38	ISBEa	-
39	IRHAa	-	40	XLTa	-	42	dSORa	-	44	SACa	-	45	URE	-	46	AGLU	-
47	dTURa	-	48	dTREa	+	49	NO3a	-	51	IARaA	-	52	dGATa	(-)	53	ESC	-
54	IGLTa	+	55	dXYLa	-	56	LATa	+	58	ACEa	+	59	CITa	-	60	GRTas	-
61	IPROa	+	62	2KGa	-	63	NAGa	-	64	dGNTa	+						

Installed VITEK 2 Systems Version: 07.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified: