



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Klebsiella pneumoniae subsp. pneumoniae Catalog Number: 0683 Lot Number: 683-54 Reference Number: ATCC® 4352™* Purity: < 0.1% Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 2	Expiration Date: 2018/2/28 Release Information: Quality Control Technologist: Tanner E Rothstein Release Date: 2016/4/14
---	---

Performance	
Macroscopic Features: Medium to large, gray/white, circular, domed, glistening, smooth. Microscopic Features: Gram negative straight 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.

⚠ Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



(1) These tests are accredited to ISO/IEC 17025:2005.

TESTING CERT #2655.01

Microbiologics

bioMerieux Customer: 1012555
System #: 521711

Laboratory Report

Printed Apr 14, 2016 07:50 CDT
Printed by: ter
Report Version: 1 of 1

Isolate Group: 683 84-1

Bench: TR

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

Bionumber: 6607715551565000

Organism Quantity:

Comments:	

Identification Information	Card:	GN	Lot Number:	241370540	Expires:	Feb 4, 2017 12:00 CST
	Completed:	Apr 13, 2016 16:41 CDT	Status:	Final	Analysis Time:	6.00 hours
Selected Organism	96% Probability Klebsiella pneumoniae ssp ozaenae					
	Bionumber: 6607715551565000				Confidence:	Excellent identification
SRF Organism						
Analysis Organisms and Tests to Separate:						
Analysis Messages:						
Contraindicating Typical Biopattern(s)						
Klebsiella pneumoniae ssp ozaenae LDC(12),						

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	BAIap	-
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: <i>Listeria monocytogenes</i> Catalog Number: 0398 Lot Number: 398-58 Reference Number: ATCC® 7644™* 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: Jennifer Holub Release Date: 2016/8/24
---	---

Performance	
Macroscopic Features: Small, circular, translucent, with varying degrees of beta hemolysis Microscopic Features: Regular, short, gram positive rods with rounded ends	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): positive (1) Purple Broth W/Rhamnose: positive (1) Purple Broth W/Xylose: negative  Brad Goskowitz, 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.

⚠ Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



(1) These tests are accredited to ISO/IEC 17025:2005.

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: Listeria monocytogenes

Analyte Description: 0398

Analyte ID: 398-58

Analyte Creation Date/Time: 2016-08-18T15:26:48.559 JH

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

Applied Taxonomy Tree:

Rank (Quality)	Matched Pattern	Score Value	NCBI Identifier
1(++)	<u>Listeria monocytogenes Mb19348_1 CHB</u>	2.247	<u>1639</u>
2(++)	<u>Listeria monocytogenes CCUG 59664 CCUG</u>	2.2	<u>1639</u>
3(++)	<u>Listeria monocytogenes CCUG 61052 CCUG</u>	2.199	<u>1639</u>
4(++)	Listeria ivanovii 141021_19119 AGES	2.163	<u>1638</u>
5(++)	<u>Listeria monocytogenes CCUG 35751 CCUG</u>	2.155	<u>1639</u>
6(++)	<u>Listeria monocytogenes CCUG 32843 CCUG</u>	2.126	<u>1639</u>
7(++)	<u>Listeria monocytogenes CCUG 33548 CCUG</u>	2.117	<u>1639</u>
8(++)	<u>Listeria monocytogenes CCUG 32964A CCUG</u>	2.101	<u>1639</u>
9(++)	<u>Listeria monocytogenes CCUG 49753 CCUG</u>	2.081	<u>1639</u>
10(++)	<u>Listeria monocytogenes DSM 20600T DSM</u>	2.081	<u>1639</u>

Comments:

Extraction must be performed to permit reliable species identification.



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Burkholderia cepacia Catalog Number: 0488 Lot Number: 488-76 Reference Number: ATCC® 25416™* Purity: > 99.9% of Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 2	Expiration Date: 2018/1/31 Release Information: Quality Control Technologist: Kieshia L Negen Release Date: 2016/3/21
---	--

Performance	
Macroscopic Features: Small to medium, circular, opaque, convex, gray to yellow/green colonies. SBAP Rough and smooth colony types are present.	Medium:
Microscopic Features: Long gram negative rods in pairs.	Method: Gram Stain (1)
ID System: Vitek GN (1) See attached ID System results document.	Other Features/ Challenges: Results (1) Oxidase (Kovacs): positive (1) Nitrate (Broth): negative (1) Motility B Medium: positive (1) Purple Broth W/Sucrose: positive  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.

 Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



(1) These tests are accredited to ISO/IEC 17025:2005.

TESTING CERT #2655.01

Microbiologics

bioMerieux Customer: 05871
System #: C21105

Laboratory Report

Printed Mar 7, 2016 09:27 CST
Printed by: kln
Report Version: 2 of 2

Isolate Group: 488 76-1
Last Updated: Mar 7, 2016 09:27 CST
Card Type: GN Testing Instrument: 00000A6D6328 (1116)

By: kln

Bench: KN

Bionumber: 0263050013540211
Organism Quantity:

Comments:	

Identification Information	Card: GN	Lot Number: 241356410	Expires: Sep 16, 2016 13:00 CDT
	Completed: Mar 3, 2016 16:50 CST	Status: Final	Analysis Time: 4.75 hours
Selected Organism	97% Probability Burkholderia cepacia		
	Bionumber: 0263050013540211		Confidence: Excellent identification
SRF Organism			
Analysis Organisms and Tests to Separate:			
Burkholderia cepacia group			
Burkholderia cepacia SACCHAROSE(99), YELLOW(78), ONPG(99), GELATIN(74),			
Burkholderia vietnamiensis SACCHAROSE(99), YELLOW(0), ONPG(99), GELATIN(0),			
Burkholderia multivorans SACCHAROSE(1), ONPG(99), GELATIN(2),			
Burkholderia stabilis SACCHAROSE(1), ONPG(1), GELATIN(93),			
Analysis Messages:			
Contraindicating Typical Biopattern(s)			

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

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:

Microbiologics

bioMerieux Customer: 05871
System #: C21105

Laboratory Report

Printed Mar 7, 2016 09:27 CST
Printed by: kln
Report Version: 2 of 2

Isolate Group: 488 76-1
Last Updated: Mar 7, 2016 09:27 CST
Card Type: GN Testing Instrument: 00000A6D6328 (1116)

By: kln

Bench: KN

Bionumber: 0263050013540211
Organism Quantity:

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: Escherichia coli Catalog Number: 0483 Lot Number: 483-558 Reference Number: ATCC® 8739™* 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: Christine Condon Release Date: 2016/5/31
---	---

Performance	
Macroscopic Features: Medium to large, gray, mucoid, convex. Microscopic Features: Gram negative straight rod.	Medium: SBAP Method: Gram Stain (1)
ID System: MALDI-TOF See attached ID System results document.	Other Features/ Challenges: Results (1) Oxidase (Kovacs): negative Beta-glucuronidase (E. coli Broth w/MUG): positive  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.

⚠ Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



(1) These tests are accredited to ISO/IEC 17025:2005.

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: Escherichia coli

Analyte Description: 0483

Analyte ID: 483-558

Analyte Creation Date/Time: 2016-05-26T13:48:53.288 CC

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

Applied Taxonomy Tree:

Rank(Quality)	Matched Pattern	ScoreValue	NCBIIdentifier
1(+++)	Escherichia coli DSM 1576 DSM	2.607	562
2(+++)	Escherichia coli DSM 682 DSM	2.415	562
3(+++)	Escherichia coli RV412_A1_2010_06a LBK	2.399	562
4(+++)	Escherichia coli DH5alpha BRL	2.309	562
5(++)	Escherichia coli MB11464_1 CHB	2.266	562
6(++)	Escherichia coli DSM 1103_QC DSM	2.262	562
7(++)	Escherichia coli ESBL_EA_RSS_1528T CHB	2.22	562
8(++)	Escherichia coli Nissl VML	2.2	562
9(++)	Escherichia coli ATCC 25922 THL	2.191	562
10(++)	Escherichia coli ATCC 25922 CHB	2.176	562

Comments:

closely related to Shigella and not definitely distinguishable at the moment



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Neisseria gonorrhoeae Catalog Number: 0378 Lot Number: 378-78 Reference Number: ATCC® 19424™* Purity: > 99.9% of Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 4	Expiration Date: 2018/5/31 Release Information: Quality Control Technologist: Kieshia L Negen Release Date: 2016/6/9
--	---

Performance	
Macroscopic Features: Small to medium, opaque, tan to grayish white, raised, glistening and convex	Medium: Chocolate
Microscopic Features: Gram negative cocci occurring singly, but more often in pairs with adjacent sides flattened.	Method: Gram Stain (1)

ID System: Vitek NH (1) See attached ID System results document.	Other Features/ Challenges: Results (1) Oxidase (Kovacs): positive Modified Thayer Martin Agar: good growth (1) Beta Lactamase (Cefinase Disk): 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.

 Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



(1) These tests are accredited to ISO/IEC 17025:2005.

TESTING CERT #2655.01

bioMerieux Customer: 1012555
System #: 521711

Laboratory Report

Printed Jun 8, 2016 15:13 CDT
Printed by: kln

Isolate Group: 378 78-1

Bench: CS

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

Bionumber: 5237000000

Organism Quantity:

Comments:	

Identification Information	Card: NH	Lot Number: 245369522	Expires: Jan 25, 2017 12:00 CST
	Completed: Jun 2, 2016 15:40 CDT	Status: Final	Analysis Time: 6.00 hours
Selected Organism	99% Probability Neisseria gonorrhoeae		
	Bionumber: 5237000000	Confidence: Excellent identification	
SRF Organism			
Analysis Organisms and Tests to Separate:			
Analysis Messages: Critical Pathogen			
Contraindicating Typical Biopattern(s)			

Biochemical Details																	
1	ArgA	+	2	GGT	-	3	LysA	+	4	dGAL	-	5	LeuA	+	6	ELLM	-
7	PheA	+	8	ProA	+	10	PyrA	-	13	TyrA	+	15	APPA	+	18	dGLU	+
19	GLYG	-	20	dMNE	-	22	dMAL	-	28	SAC	-	33	NAG	-	36	URE	-
39	BGALi	-	40	ODC	-	41	AARA	-	45	PVATE	-	46	PHC	-	47	dMLT	-
51	MTE	-	52	IGLM	-	59	PHOS	-	61	dRIB2	-	62	OPS	-	64	dXYL	-

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: Haemophilus influenzae Catalog Number: 0376 Lot Number: 376-85 Reference Number: ATCC® 19418™* Purity: < 0.1% Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 4	Expiration Date: 2017/11/30 Release Information: Quality Control Technologist: Christine Condon Release Date: 2015/12/31
---	---

Performance	
Macroscopic Features: Medium to large, tan/gray, circular, flat, convex, smooth colonies Microscopic Features: Gram negative short rods or coccobacilli may show marked pleomorphism	Medium: Chocolate Method: Gram Stain (1)
ID System: Vitek NH (1) See attached ID System results document.	Other Features/ Challenges: Results V factor (disks): negative X factor (disks): negative XV factor (disks): positive (1) Beta Lactamase (Cefinase Disk): 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.

⚠ Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



(1) These tests are accredited to ISO/IEC 17025:2005.

TESTING CERT #2655.01

bioMerieux Customer: 05871
System #: C21105

Laboratory Report

Printed Dec 31, 2015 07:47 CST
Printed by: cmc
Report Version: 1 of 1

Isolate Group: 376 85 01-1

Bench: KN

Card Type: NH Testing Instrument: 00000A6D6328 (1116)

Bionumber: 5715041647

Organism Quantity:

Comments:	

Identification Information	Card: NH	Lot Number: 245361420	Expires: Nov 5, 2016 13:00 CDT
	Completed: Dec 30, 2015 21:01 CST	Status: Final	Analysis Time: 6.00 hours
Selected Organism	93% Probability Haemophilus influenzae		
	Bionumber: 5715041647	Confidence: Very good identification	
SRF Organism			
Analysis Organisms and Tests to Separate:			
Analysis Messages: See product information for additional information.			
Contraindicating Typical Biopattern(s) Haemophilus influenzae BGALi(1),			

Biochemical Details																	
1	ArgA	+	2	GGT	-	3	LysA	+	4	dGAL	+	5	LeuA	+	6	ELLM	+
7	PheA	+	8	ProA	-	10	PyrA	-	13	TyrA	+	15	APPA	-	18	dGLU	+
19	GLYG	-	20	dMNE	-	22	dMAL	-	28	SAC	-	33	NAG	-	36	URE	+
39	BGALi	+	40	ODC	-	41	AARA	-	45	PVATE	-	46	PHC	+	47	dMLT	+
51	MTE	-	52	IGLM	-	59	PHOS	+	61	dRIB2	+	62	OPS	+	64	dXYL	+

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: Methylobacterium extorquens Catalog Number: 01110 Lot Number: 1110-06 Reference Number: ATCC® BAA-2500™* Purity: <0.1% of Total Pellet CFU Recovery: >1000 CFUs per pellet Passage from Reference: 2	Expiration Date: 2018/6/30 Release Information: Quality Control Technologist: Mary L Bowman Release Date: 2016/9/27
--	--

Performance	
Macroscopic Features: Tiny, round, entire colonies with a slight pink hue. Microscopic Features: Gram Negative Rod	Medium: Nutrient Method: Gram Stain (1)
ID System: Vitek GN (1) See attached ID System results document.	Other Features/ Challenges: Results (1) Oxidase (Kovacs): positive (1) Catalase (3% Hydrogen Peroxide): positive Esculin (Agar) Hydrolysis: negative (1) Nitrate (Broth): negative Growth (Nutrient) at 35C: Growth Growth (nutrient) at 42C: No growth to very sparse growth. Urea Agar Slant: positive Gelatin Liquefaction: negative Growth on R2A agar from pellet: good growth  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.

 Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



TESTING CERT #2655.01

(1) These tests are accredited to ISO/IEC 17025:2005.

Microbiologics

bioMerieux Customer: 1012555
System #: 521711

Laboratory Report

Printed Sep 8, 2016 14:02 CDT
Printed by: mlb

Isolate Group: 1110 06-1

Bench: MB

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

Bionumber: 2000604220500000

Organism Quantity:

Comments:	

Identification Information	Card:	GN	Lot Number:	241370540	Expires:	Feb 4, 2017 12:00 CST
	Completed:	Sep 7, 2016 21:10 CDT	Status:	Final	Analysis Time:	5.00 hours
Selected Organism	95% Probability		Methylobacterium spp			
	Bionumber: 2000604220500000			Confidence: Very good identification		
SRF Organism						
Analysis Organisms and Tests to Separate:						
Analysis Messages:						
Contraindicating Typical Biopattern(s)						
Methylobacterium spp ADO(1),						

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	BAIap	-
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: Pseudomonas aeruginosa Catalog Number: 0484 Lot Number: 484-760 Reference Number: ATCC® 9027™* Purity: > 99.9% of Total Pellet CFU Mean Assay Value: 4.6E+07 CFU per pellet Passage from Reference: 3	Expiration Date: 2018/8/31 Release Information: Quality Control Technologist: Megan C McClure Release Date: 2016/12/16
---	---

Performance	
Macroscopic Features: Large, flat, circular to irregular shaped, gray with silver sheen. A second colony type may also be present as small, round, shiny colonies.	Medium: SBAP
Microscopic Features: Straight or slightly curved gram negative rod.	Method: Gram Stain (1)
ID System: MALDI-TOF See attached ID System results document.	Other Features/ Challenges: Results (1) Oxidase (Kovacs): positive (1) Motility B Medium: positive Pseudomonas P Agar: positive (blue-green color diffusing into the agar) Growth at 42 C: positive  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.

⚠ Refer to the enclosed product insert for instructions, intended use and hazard/safety information.

Individual products are traceable to a recognized culture collection.



(*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.



(1) These tests are accredited to ISO/IEC 17025:2005.

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: Pseudomonas aeruginosa
 Analyte Description: 0484
 Analyte ID: 484-760
 Analyte Creation Date/Time: 2016-12-14T13:41:21.671 MCM
 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
E4 (+++)(A)	484-760	Pseudomonas aeruginosa	2.369

Comments:

N/A



Statistical Analysis Certificate

Microorganism Name: *Pseudomonas aeruginosa*

Reference #: ATCC® 9027™*

Catalog #: 0484

Lot #: 484-760

Expiration Date: 2018/8/31

Mean Assay Value: 4.6E+07 CFU per pellet

Standard Deviation: 5.7E+06

Coefficient of Variation: 12%

99% Confidence Interval of 4.3E+07 to 4.9E+07 CFU

95% Confidence Interval of 4.4E+07 to 4.8E+07 CFU

Method used to determine Mean Assay Value: Spiral Biotech Test Method

Medium Employed: TSA

Incubation Time and Temp: 24 hrs at 34-38 degrees C

A handwritten signature in blue ink that reads "Amanda Lyons". The signature is fluid and cursive, with the first name "Amanda" and last name "Lyons" clearly distinguishable.

Quality Control Manager

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. The information included in this Statistical Analysis Certificate is strictly based on the product's lot number. A product lot number may be assigned to multiple packaging configurations. As a result, this certificate only lists the lot number and does not include a product description.

© 2012 Microbiologics, Inc. All Rights Reserved. 200 Cooper Avenue North Saint Cloud, MN 56303



Certificate of Analysis: Lyophilized Microorganism Specification and Performance Upon Release

Specifications Microorganism Name: Salmonella enterica subsp. enterica serovar Choleraesuis Catalog Number: 0902 Lot Number: 902-71 Reference Number: ATCC® 10708™* Purity: < 0.1% Total Pellet CFU Recovery: > 1000 CFUs per Pellet Passage from Reference: 2		Expiration Date: 2017/12/31 Release Information: Quality Control Technologist: Carol J Stanoch Release Date: 2016/2/22
Performance		
Macroscopic Features: Medium, gray/white, circular, convex colonies. Microscopic Features: Gram negative straight rod.	Medium: SBAP Method: Gram Stain (1)	Other Features/ Challenges: Results (1) Oxidase (Kovacs): negative Hektoen Enteric agar: good growth, colorless to light blue to blue-green colonies (1) Salmonella O antiserum Factor O:7,8 (Included in group C1): positive
ID System: Vitek GN (1) See attached ID System results document.	 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. ⚠ Refer to the enclosed product insert for instructions, intended use and hazard/safety information. Individual products are traceable to a recognized culture collection.  (*) The ATCC Licensed Derivative Emblem, the ATCC Licensed Derivative word mark and the ATCC catalog marks are trademarks of ATCC. Microbiologics, Inc. is licensed to use these trademarks and to sell products derived from ATCC® cultures.  (1) These tests are accredited to ISO/IEC 17025:2005. TESTING CERT #2655.01		

Microbiologics

bioMerieux Customer: 05871
System #: C21105

Laboratory Report

Printed Feb 22, 2016 08:45 CST
Printed by: cjs
Report Version: 2 of 2

Isolate Group: 902 71-1
Last Updated: Feb 22, 2016 08:45 CST
Card Type: GN Testing Instrument: 00000A6D6328 (1116)

By: cjs

Bench: CS

Bionumber: 0005610501566210
Organism Quantity:

Comments:	

Identification Information	Card: GN	Lot Number: 241356410	Expires: Sep 16, 2016 13:00 CDT			
	Completed: Feb 18, 2016 14:50 CST	Status: Final	Analysis Time: 6.00 hours			
Selected Organism	99% Probability Salmonella group					
	Bionumber: 0005610501566210		Confidence: Excellent identification			
SRF Organism						
Analysis Organisms and Tests to Separate:						
Salmonella group						
Salmonella spp						
Salmonella ser.Paratyphi B						
Salmonella ser.Typhimurium						
Salmonella ser.Paratyphi C						
Salmonella ser.Enteritidis						
Salmonella enterica ssp enterica						
Analysis Messages:						
Confirm by serological tests						
Contraindicating Typical Biopattern(s)						

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

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:

Microbiologics

bioMerieux Customer: 05871
System #: C21105

Laboratory Report

Printed Feb 22, 2016 08:45 CST
Printed by: cjs
Report Version: 2 of 2

Isolate Group: 902 71-1
Last Updated: Feb 22, 2016 08:45 CST
Card Type: GN Testing Instrument: 00000A6D6328 (1116)

By: cjs

Bench: CS

Bionumber: 0005610501566210
Organism Quantity:

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: