

DAFTAR PUSTAKA

- Astawa, I.B.B., dan Ni Made, A.T., 2017. Identifikasi Jenis Bakteri Dalam Air Limbah di Rumah Sakit Sanglah. Universitas Udayana. Denpasar. Vol. 6 (6).
- Atiq, N., Safia, A.M., Ishtiaq, A., Saadia, A., Bashir, A., dan Geoffery, R. 2010. Isolation And Identification of *Polystyrene* Biodegrading Bacteria From Soil. Quaid-i-Azam University. Pakistan. Vol. 4 (14) : 1537-1541.
- Breditsch, M., Sergii, A., Anne, S.U., 2007. The Ability of *Aneurinibacillus migulanus* (*Bacillus brevis*) To Produce The Antibiotic Gramicidin S Is Correlated with Phenotype Variation. Institute of Organic Chemistry. Germany.
- Bizio. 1823. *Serratia marcescens* BS 303 is anaerobe, mesophilic human pathogen that has multiple antibiotic resistances and was isolated from pond water. Diakses melalui <https://bacdive.dsmz.de/strain/5165> on 08-11-2020.
- Brisou, J., and Prevot, A.R. 1954. Etudes de Systematique Bacterienne. X. Revision des Especies Reunies Dans Le Genre *Achromobacter*. Annales de Institut Pasteur. Paris. 86:722-728. Worms.
- Cappucino, J.G. dan N. Sherman. 1986. Microbiology : A Laboratory Manual. The Benjamin/Cummings Publishing Company Press, Inc. Menlo Park, California.
- Castelliani, A., dan Chalmers, S.J., 1919. Manual of Tropical Medicine. Erd ed. William Wood and Co. New York. WoRMS. Accessed at : <http://www.marinespecies.org/aphia.php?p=taxdetails&id=393996> on 2020-10-27.
- Dalahi, F., Sri, S., Agustono., 2014. Isolasi dan Identifikasi Bakteri yang Terdapat Pada Saluran Pencernaan Ikan Gurami (*Osphronemus gouramy*) dengan Pemberian Pakan Komersil yang Berbeda. Universitas Airlangga. Surabaya. Vol. 6 (1) : 87-92.
- Elpawati. 2015. Uji Coba Produksi Mikroorganisme Pendegradasi (Penghancur) Sampah Plastik. Jurnal Agribisnis. Vol.9 (1) : 11-22.
- Fardiaz, S., 1992. Mikrobiologi Pangan 1. PT. Gramedia Pustaka Utama. Jakarta. 320 hlm
- Fawzya, Y.N., Rani, E.P., Wibowo, M., Ifah, M., Gintung, P., 2013. Produksi dan Karakterisasi Xilanase dari Isolat Bakteri M-13.2A Asal Air Laut Manado. Universitas Indonesia. Jakarta Pusat.
- Foulon, V., Frederique, L.R. Christophe, L., Arnaud, H., Philippe, S., dan Ika, P., 2016. Colonization of *Polystyrene* Microparticle By *Vibrio crassostreae* : Light And Electron Microscopic Investigation. Prancis.
- Frediansyah, A., dan Made, S., 2013. Potensi *Paenibacillus* spp. Sebagai Pemacu Pertumbuhan Tanaman Pada Ekosistem Gambut Tropis. Cibinong. LIPI.
- Hajar, Dachniar. 2012. Isolasi, Identifikasi, dan Analisis Kemampuan Degradasi Hidrokarbon Bakteri Tanah Sampel B, Cilegon, Banten. Skripsi. Universitas Indonesia. Depok.

- Hauser. 1885. *Proteus mirabilis* CDC PR 14 is a Mesophilic human pathogen that has multiple antibiotic resistances. Diakses melalui <https://bacdive.dsmz.de/strain/5058> on 08-11-2020.
- Ho, Ba Thanh., Timothy K.R., Steven, L., 2017. An Overview On Biodegradation Of *Polystyrene* and Modified *Polystyrene* : The Microbial Approach. University of Newcastle. Australia. Vol 38 (2) : 308 - 320.
- Indriani, Y. 2008. Produksi dan Laju Dekomposisi Serasah Daun Mangrove Api-Api (*Avicennia Marina* Forssk. Vierh) di Desa Lontas, Kecamatan Kemiri, Kabupaten Tangerang, Provinsi Banten. Skripsi. Institut Pertanian Bogor. Bogor.
- Jaweetz. 2005. Mikrobiologi Kedokteran. Salemba Medika: Jakarta.
- Kadim, M.K., Nuralim, P., Kajian Kualitas Perairan Teluk Gorontalo dengan Menggunakan Metode STORET. Depik. Vol 6 (3) : 235 – 241.
- Kementrian Lingkungan Hidup. 2004. Keputusan Menteri Negara Lingkungan Hidup No. 51 Tahun 2004 tentang Baku Mutu Air Laut Untuk Biota Laut. Jakarta.
- Khoiriyah, Khifdatul. 2017. Identifikasi Bakteri *Proteus* sp. Pada Air Kolam Renang. KTI. Sekolah Tinggi Ilmu Kesehatan. Jombang.
- Lempang, Meyby Eka., 2014. Identifikasi *Proteus mirabilis* dan Resistensinya Terhadap Antibiotik Imipenem, Klorampenikol, Sefotaksim dan Siprofoksin Pada Daging Ayam di Kota Makassar. Skripsi. Universitas Hasanuddin. Makassar.
- Massinai, A., Akhbar, T., Jamaluddin, J., dan Alexander, R., 2017. Bakteri Asosiasi Karang Batu (Skleractinian) yang Terinfeksi Penyakit Tumor (*Growth anomalies*) yang Berasal dari Pulau Salemo Kabupaten Pangkep. Vol 2 (1) : 7-12.
- Mudatsir. 2007. Faktor-faktor yang Mempengaruhi Kehidupan Mikroba Dalam Air. Jurnal Kedokteran Syiah Kuala. Vol. 7 (1).
- Mukminah, I.A. 2019. Bahaya Wadah *Styrofoam* dan Alternatif Penggantinya. Universitas Padjajaran. Jawa Barat. Vol. 4 (2) : 32-34.
- Nanda, S dan Smiti, S.S. 2010. Biodegradability of Polyethylene by *Brevibacillus*, *Pseudomonas*, and *Rhodococcus* spp., New York Science Journal. Vol 3. 96-97.
- Narulita, D.S. 2011. Analisis Tingkat Pencemaran Bakteri Coliform dan Kaitannya dengan Parameter Oseanografi pada Perairan Pantai Kab. Maros. Skripsi. Jurusan Ilmu Kelautan, FIKP UNHAS. Makassar.
- NOAA (National Oceanic and Atmospheric Administration). 2013. Programmatic Environmental Assesment (PEA) for the NOAA Marine Debris Program (MDP). Maryland (US) : NOAA. 168p.
- Ochtaviana, D.C. 2018. Perlindungan Hukum Bagi Konsumen Terhadap Penggunaan Kemasan Busa Putih (*Styrofoam*) Sebagai Kemasan Makanan. Skripsi. Bandar Lampung. Universitas Lampung.

- Oda, Y., Oida, N., Urakami, T., Tonomura, K., 1997. Polycaprolactone Depolymerase Produced by The Bacterium *Alcaligenes faecalis*. FEMS Microbiol Lett 152 : 339-343.
- Panda, A.K, Satpal, S.B. Surajit, D.M, Senthil,K., Gurusubramanian dan Ashok, K.P. 2014. *Brevibacillus* as a Biological Tool: a Short Review, Antonie van Leeuwenhoek. 105. 623-627.
- Putri, M. H., Sukini., dan Yodong. 2017. Mikrobiologi. Kementerian Kesehatan Republik Indonesia.
- Rahayu, D., 2007. Produksi Polihidroksialkanoat dari Air Limbah Industri Tapioka dengan Sequencing Batch Reactor. Karya Ilmiah. Universitas Padjadjaran.
- Riga, P.N., Velma, B., Fredine, R., 2015. Isolasi dan Identifikasi Bakteri Aerob yang Dapat menyebabkan Infeksi Nosokomial di Ruang Instalasi Gizi BLU Prof. Dr. R. D Kandou Manado. Universitas Sam Ratulangi. Manado, Vol. 3 (1).
- Rizka, A., dan Sri, R.J. 2013. Pembuatan Stirena Dari Limbah Plastik Dengan Metode Priolisis. Institut Teknologi Sepuluh November. Surabaya. Vol.2 (1) : 2337-3539.
- Robert, S.B., E.G.D. Murray., Nathan, R.S., 1957. *Bergey's Manual of Determinative Bacteriology seventh edition*. The Williams and Wilkins Company. United State of America.
- Rohmah, Nita Shilfiani., 2017. Isolasi dan Identifikasi Bakteri yang Berpotensi Sebagai Agen Bioremediasi Timbal (Pb) dari Lumpur Lapindo. Skripsi. Universitas Islam Negeri Maulana Malik Ibrahim. Malang.
- Ruyitno. 1990. Mengenal Mesokosme (Mesocosm). LIPI. Vol. 15 (3) : 107-114.
- Sari, S.A., Elvi, Y., dan Sri, R.M., 2019. Pengaruh Komposisi Nutrisi Terhadap Laju Biodegradasi *Styrofoam* Menggunakan Ulat Hongkong (LARVA *Tenebrio molitor*). Universitas Riau. Pekanbaru. Vol. 6 Edisi 2.
- Sari, J. L., Lenni, O., Muhammad, K.K., Dimas, R.P., dan Mita, M. 2014. Pengolahan Limbah *Styrofoam* Dengan Agen Biologi *Pseudomonas*. Universitas Kristen Satya Wacana Salatiga.
- Shida, Takagi., Kakokawi., and Kogamata. 1996. WoRMS. Accesed at: <https://www.marinespecies.org/aphia.php?p=taxdetails&id=571025> On 2020-09-19.
- Shida, O., Hiroaki, T., Kiyoshi, K., Kazuo, K., 1996. Proposal For Two New Genera, *Brevibacillus* gen. Nov. And *Aneurinibacillus* gen. Nov. Tokyo. Japan. Vol. 46 (4) : 939 – 946.
- Sidharta, Boy Rahardjo., 2000. Pengantar Mikrobiologi Kelautan. Universitas Atma Jaya Yogyakarta. Yogyakarta.

- Siregar, B.A.S. 2009. Pencirian dan Biodegradasi Polipaduan (*Styrofoam*-Pati) Dengan Poliasamllaktat Sebagai Bahan Biokompatibel. Institut Pertanian Bogor. Skripsi. Bogor.
- Sommeng, F., Yani, S., Fathannia, R.D., 2019. Identifikasi Bakteri Udara di Ruang Operasi dengan Bakteri pada Luka Infeksi Pasien Pasca Operasi di Rumah Sakit Ibnu Sina. Universitas Muslim Indonesia. Makassar. Vol. 4 (1).
- Supardi., dan Sukamto., 1999. Mikrobiologi dalam Pengolahan dan Keamanan Pangan. Alumni. Bandung. 290 hlm.
- Tauran. P.M., Irda, H., Nurhayana, S., 2013. Identifikasi Bakteri Aerob Gram Negatif dan Gram Positif Menggunakan Metode Konvensional dan Otomatik. Universitas Hasanuddin. Makassar. Vol. 19 (2) : 105-111.
- Ulfa, A., Endang, S., dan Mimien, H. I. 2016. Isolasi dan Uji Sensitivitas Merkuri Pada Bakteri Dari Limbah Penambangan Emas di Sekotong Barat Kabupaten Lombok Barat : Penelitian Pendahuluan. Universitas Negeri Malang. Malang. Vol. 13 (1) 793-799.
- Utami, U., Liliek, H., Nur, K., dan Priya, D.F. 2018. Buku Petunjuk Praktikum Mikrobiologi Umum. Universitas Islam Negeri Maluna Malik Ibrahim. Malang.
- Wahyuni, R. M., Arman, S., Mahdi, A., Ernia., Hasan, M., dan Zainuddin. 2018. Isolasi dan Identifikasi Bakteri Enterik Patogen Pada Badak Sumatera (*Dicerorhinus sumatrensis*) di Suaka Rhino Sumatera (SRS), Taman Nasional Way Kambas (TNWK), Lampung. Universitas Syiah Kuala. Vol. 2 (4) : 474-487.
- Waluyo, L. 2008. Teknik Metode Dasar Mikrobiologi. Malang : UMM-Press.
- Wibowo, M.H., Antasiswa, W.R., Agustina, D.W., Claudia, M.A., 2016. Isolasi dan Identifikasi Bakteri dari Tinja Orangutan Penderita Gangguan Gastrointestinal. Universitas Gadjah Mada. Yogyakarta.
- Wicaksono, S., Endang, K., Budi, R., 2017. Pertumbuhan dan Produksi Pigmen Merah oleh *Serratia marcescens* Pada Berbagai Sumber Karbon. Universitas Diponegoro. Semarang.
- Widianarko, B., dan Inneke, H. 2018. Mikroplastik Dalam Seafood Dari Pantai Utara Jawa. Universitas Katolik Soegijapranata. Semarang.
- Wirahadi, M. 2017. Elemen Interior Berbahan Baku Pengolahan Sampah *Styrofoam* dan Sampah Kulit Jeruk. Universitas Kristen Petra. Surabaya. Vol. 5 (2) : 144-153.
- Yamashiro, H., 2004. Coral Disease. Coral Reef of Japan. Edited by The Japanese Coral Reef Society and Ministry of The Environment. Ministry of the Environment of Japan. 356 pp.
- Yolantika, H., Periadnadi., Nurmiati., 2015. Isolasi Bakteri Pendegradasi Hidrokarbon di Tanah Tercemar Lokasi Perbengkelan Otomotif. Universitas Andalas. Padang.
- Zusfahair, Puji, L., Dian, R.N., Senny, W., 2007. Biodegradasi Polietilena Menggunakan Bakteri Dari TPA (Tempat Pembuangan Akhir) Gunung Tugel Kabupaten Banyumas. Universitas Jenderal Soedirman. Purwokerto.

LAMPIRAN

Lampiran 1. Hasil identifikasi online bakteri isolat 2

Indole test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>	Urea hydrolysis test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>	Motility test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>
Methyl Red test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>	Phenylalanine deaminase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Gas from glucose <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>
Voges Proskauer test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>	Lysine decarboxylase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Lactose fermentation test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>
Citrate utilization test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>	Ornithine decarboxylase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Sucrose fermentation test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>
Hydrogen sulphide test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>	Arginine dihydrolase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Mannitol fermentation test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>
ONPG test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>		

⊗ Likelihood of this organism is as follows:

Lampiran 2. Hasil identifikasi online bakteri isolat 4

Indole test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>	Urea hydrolysis test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>	Motility test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>
Methyl Red test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>	Phenylalanine deaminase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Gas from glucose <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>
Voges Proskauer test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>	Lysine decarboxylase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Lactose fermentation test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>
Citrate utilization test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>	Ornithine decarboxylase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Sucrose fermentation test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>
Hydrogen sulphide test <input type="button" value="Positive"/> <input checked="" type="button" value="Negative"/> <input type="button" value="Unknown"/>	Arginine dihydrolase test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>	Mannitol fermentation test <input checked="" type="button" value="Positive"/> <input type="button" value="Negative"/> <input type="button" value="Unknown"/>
<hr/>		
ONPG test <input type="button" value="Positive"/> <input type="button" value="Negative"/> <input checked="" type="button" value="Unknown"/>		
<p>∓ Likelihood of this organism is as follows:</p> <p><input checked="" type="button" value="Serratia marcescens : 96.12%"/> Enterobacter aerogenes : 2.57% Enterobacter cloacae : 1.31%</p>		

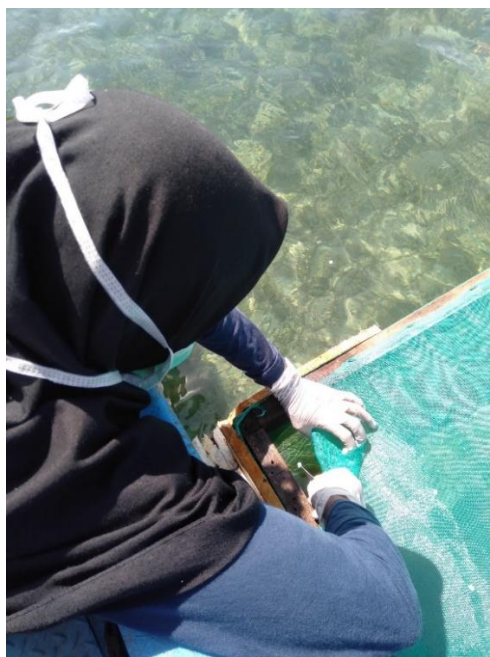
Lampiran 3. Perhitungan jumlah koloni bakteri asosiasi sampah plastik *styrofoam*

Hari Sampling	Perlakuan Mikrokosmos	Jumlah Koloni (Cfu/mL)					
		<i>Acinetobacter baumannii</i>	Unknown-1	<i>Brevibacillus sp-1</i>	Unknown-2	<i>Brevibacillus sp-2</i>	<i>Brevibacillus sp-3</i>
Hari ke-3	Terbuka	<10	<10	<10	-	3,1 x 10 ²	-
	Semi Terbuka	-	<10	<10	-	3,3 x 10 ²	-
	Tertutup	<10	<10	25 x 10 ²	-	-	55 x 10 ²
Hari ke-7	Terbuka	32 x 10 ²	<10	-	-	<10	<10
	Semi Terbuka	71 x 10 ²	<10	38 x 10 ²	-	<10	26 x 10 ²
	Tertutup	-	77 x 10 ²	<10	<10	35 X 10 ²	70 x 10 ²
Hari ke-14	Terbuka	98 X 10 ²	-	<10	-	<10	39 x 10 ²
	Semi Terbuka	137 X 10 ²	<10	162 x 10 ²	<10	-	<10
	Tertutup	230 X 10 ²	39 x 10 ²	128 x 10 ²	<10	4200	47 x 10 ²

Lampiran 4. Dokumentasi kegiatan
Perlakuan mikrokosmos di lokasi penelitian; Tertutup, semi terbuka dan terbuka.



Pengambilan sampel



Pengukuran parameter lingkungan



Inokulasi bakteri asosiasi plastik *styrofoam*



Isolasi bakteri asosiasi styrofoam




Menginkubasi bakteri di inkubator



Pengamatan morfologi koloni bakteri asosiasi plastik *styrofoam*




Lampiran 5. Hasil identifikasi bakteri yang dilakukan di Laboratorium Mikrobiologi Balai Besar Laboratorium Kesehatan Makassar.



KEMENTERIAN KESEHATAN RI

DIREKTORAT JENDERAL PELAYANAN KESEHATAN
BALAI BESAR LABORATORIUM KESEHATAN MAKASSAR

Jl. Perintis Kemerdekaan KM 11 Tamalanrea Makassar 90245



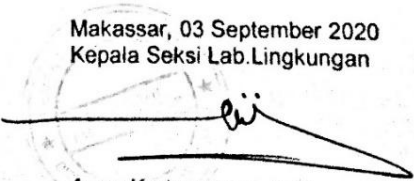
HASIL PENELITIAN MAHASISWA
No.20011600 - 20011605 /LHU/BBLK-MKS/VIII/2020

Nama : Dwi Rahmadani
 NIM : L11116003
 PT/Fak/Jur : Universitas Hasanuddin/ Fakultas Ilmu Kelautan dan Perikanan/ Ilmu Kelautan
 Program : -
 Tanggal Penelitian : 13 Agustus 2020
 Judul Penelitian : Keberadaan Bakteri yang Mengkolonisasi Sampah Plastik Styrofoam
 Sampel : Isolat
 Parameter : Identifikasi Bakteri
 Hasil Penelitian :

No Lab	Kode Isolat	Pewarnaan Gram	Jenis Bakteri
20011600	Isolat 1	Bacilli Gram Negatif	<i>Acinetobacter baumannii</i>
20011601	Isolat 2	Bacilli Gram Positif	Unidentified Organism
20011602	Isolat 3	Bacilli Gram Positif	<i>Brevibacillus choshinensis</i>
20011603	Isolat 4	Bacilli Gram Positif	Unidentified Organism
20011604	Isolat 5	Bacilli Gram Positif	<i>Brevibacillus choshinensis</i>
20011605	Isolat 6	Bacilli Gram Positif	<i>Brevibacillus choshinensis</i>

Catatan : 1 Hasil uji hanya berlaku untuk sampel yang di uji
 2 Laporan hasil uji ini terdiri dari 1 halaman
 3 Laporan hasil uji ini tidak boleh digandakan
 Kecuali secara lengkap dan seizin tertulis laboratorium penguji
 Balai Besar Laboratorium Kesehatan Makassar
 • Parameter yang terakreditasi

Makassar, 03 September 2020
 Kepala Seksi Lab.Lingkungan



Arraz Kartanegara, S. Farm
 NIP : 197804212000121002

Lampiran 6. *Probability* laporan hasil pengujian 6 isolat berturut-turut.
 Hasil identifikasi bakteri (isolat 1)

BBLK MAKASSAR

bioMérieux Customer:
System # 11530

Laboratory Report

Printed Sep 3, 2020 15:16 SGT
Printed by: LabSuper

Patient Name: Rahmadani, dwi
Isolate: 11600-1 (Approved)

Patient ID: 14082020

Card Type: GN Bar Code: 2411103203507804 Testing Instrument: 000015F277A8 (11530)
 Setup Technologist: Laboratory Supervisor(LabSuper)

Bionumber: 0241010103500212

Organism Quantity: **Selected Organism: Acinetobacter baumannii**

Comments:

McFarland: (0.50 - 0.63)

Identification Information	Card: GN	Lot Number: 2411103203	Expires: Dec 3, 2020 12:00 SGT
	Completed: Aug 14, 2020 21:12 SGT	Status: Final	Analysis Time: 5 78 hours
Organism Origin	VITEK 2		
Selected Organism	99% Probability Acinetobacter baumannii		Confidence: Excellent identification
SRF Organism	Bionumber: 0241010103500212		
Analysis Organisms and Tests to Separate: Acinetobacter baumannii 44C(99),41C(99).			
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	BAIap	-
23	ProA	-	26	LIP	-	27	PLE	-	29	TyrA	+	31	URE	-	32	dSOR	-
33	SAC	-	34	dTAG	-	35	dTRE	-	36	CIT	+	37	MNT	+	39	SKG	-
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	IMLIa	-	62	ELLM	-	64	ILATa	+			

Installed VITEK 2 Systems Version: 08.01
 MIC Interpretation Guideline:
 AES Parameter Set Name:

Therapeutic Interpretation Guideline:
 AES Parameter Last Modified:

Page 1 of 1

Hasil identifikasi bakteri (isolat 2)

BBLK MAKASSAR

BioMérieux Customer: System # 11530 Printed Sep 3, 2020 15:18 SGT
Printed by: LabSuper

Laboratory Report

Patient Name: Rahmadani, dwi Patent ID: 14082020
Isolate: 11601-1 (Approved)

Card Type: BCL Bar Code: 2391275403217044 Testing Instrument: 000015F277A8 (11530)
Setup Technologist: Laboratory Supervisor(LabSuper)

Bionumber: 0677104524652260
Organism Quantity: Selected Organism: Unidentified Organism

Comments:	
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McFarland: (1.80 - 2.20)

Identification Information	Card: BCL	Lot Number: 2391275403	Expires: May 24, 2021 12:00 SGT
	Completed: Aug 15, 2020 05:16 SGT	Status: Final	Analysis Time: 13:85 hours
Organism Origin	VITEK 2		
Selected Organism	Unidentified Organism Bionumber: 0677104524652260		
SRF Organism			
Analysis Organisms and Tests to Separate:			
Analysis Messages:			
Contraindicating Typical Biopattern(s)			

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: 08.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:

Page 1 of 1

Hasil identifikasi bakteri (isolat 3)

BBLK MAKASSAR		Printed Sep 3, 2020 15:19 SGT Printed by: LabSuper	
Merieux Customer System # 11530	Laboratory Report	Patient ID: 14082020	
Patient Name: Rahmadani, dwi Isolate: 11602-1 (Approved)			
Card Type: BCL Bar Code: 2391275403217052 Testing Instrument: 000015F277A8 (11530) Setup Technologist: Laboratory Supervisor (LabSuper)			
Bionumber: 4303101004010060 Organism Quantity:		Selected Organism: Brevibacillus choshinensis	
Comments:			
McFarland: (1.80 - 2.20)			
Identification Information	Card: BCL	Lot Number: 2391275403	Expires: May 24, 2021 12:00 SGT
	Completed: Aug 26, 2020 05:39 SGT	Status: Final	Analysis Time: 13:85 hours
Organism Origin	VITEK 2		
Selected Organism	92% Probability Brevibacillus choshinensis Bionumber: 4303101004010060 Confidence: Low discrimination		
SRF Organism			
Analysis Organisms and Tests to Separate:			
Low Discrimination Organism			
Bacillus firmus	OX(0).		
Brevibacillus choshinensis	OX(100).		
Analysis Messages:			
Contraindicating Typical Biopattern(s)			
Bacillus firmus	APPA(6), BGLU(19), PyrA(85), ESC(21), dGLU(75).		
Brevibacillus choshinensis	BGLU(24), PyrA(88), TTZ(12), AGLU(12), GYA(76).		
Installed VITEK 2 Systems Version: 08.01 MIC Interpretation Guideline: AES Parameter Set Name:		Therapeutic Interpretation Guideline: AES Parameter Last Modified:	
Page 1 of 2			

Lanjutan (isolat 3)

BBLK MAKASSAR

Laboratory Report

Printed Sep 3, 2020 15:19 SGT
Printed by LabSuper

Merieux Customer
System # 11530

Patient Name: Rahmadani, dwi
Isolate: 11602.1 (Approved)

Patient ID: 14082020

Card Type: BCL Bar Code: 2391275403217052 Testing Instrument: 000015F277A8 (11530)
Setup: Technological Laboratory Supervisor (LabSuper)

Bionumber: 4303101004010060
Organism Quantity: **Selected Organism: *Brevibacillus choshinensis***

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	MIE	-	30	GlyA	-	31	dMAN	-
32	dMNE	-	34	dMLZ	-	36	NAG	-	37	PLE	-	39	BRHA	-	41	BGLU	+
43	hMAN	-	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	ITZ	+	63	POLYB R	-						

Installed VITEK 2 Systems Version: 08.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:

Page 2 of 2

Hasil identifikasi bakteri (isolat 4)

BBLK MAKASSAR		Printed Sep 3, 2020 15:20 SGT Printed by: LabSuper															
BION-veux Customer: System # 11530		Laboratory Report															
Patient Name: Rahmadani, dwi Isolate: 11603-1 (Approved)		Patient ID: 14082020															
Card Type: BCL Bar Code: 2391275403217043 Testing Instrument: 000015F277A8 (11530) Setup Technologist: Laboratory Supervisor(LabSuper)																	
Bionumber: 6377000500446220 Organism Quantity:		Selected Organism: Unidentified Organism															
Comments:	<table border="1" style="width: 100%; height: 40px;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>																
McFarland: (1.80 - 2.20)																	
Identification Information	Card: BCL Completed: Aug 15, 2020 05:15 SGT	Lot Number: 2391275403 Expires: May 24, 2021 12:00 SGT Status: Final Analysis Time: 13.85 hours															
Organism Origin	VITEK 2																
Selected Organism	Unidentified Organism Bionumber: 6377000500446220																
SRF Organism	Analysis Organisms and Tests to Separate:																
Analysis Messages:																	
Contraindicating Typical Biopattern(s)																	
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: 08.01 MIC Interpretation Guideline: AES Parameter Set Name:																	
Therapeutic Interpretation Guideline: AES Parameter Last Modified:																	
Page 1 of 1																	

Hasil identifikasi bakteri (isolat 5)

BIBI K MAKASSAR		Printed Sep 3, 2020 16:22 SGT Printed by LabSuper				
Biorieux Customer System # 11530		Laboratory Report				
Patient Name: Rahmadani, dwi Isolate: 11004.1 (Approved)		Patient ID: 14082020				
Card Type: BCL Bar Code: 2391275403217049 Testing Instrument: 000019 277A8 (11530) Setup Technologist: Laboratory Supervisor(LabSuper)						
Bionumber: 4203101000010060		Selected Organism: Brevibacillus choshinensis				
Organism Quantity						
Comments:	<table border="1" style="width: 100%; height: 40px;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>					
McFarland: (1.80 - 2.20)						
Identification Information	Card: BCL	Lot Number: 2391275403	Expires: May 24, 2021 12:00 SGT			
	Completed: Sep 2, 2020 04:40 SGT	Status: Final	Analysis Time: 13:85 hours			
Organism Origin	VIII K 2					
Selected Organism	92% Probability Brevibacillus choshinensis		Confidence: Low discrimination			
SRF Organism	Bionumber: 4203101000010060					
Analysis Organisms and Tests to Separate:						
Low Discrimination Organism						
Bacillus firmus	OX(0).					
Brevibacillus choshinensis	OX(100).					
Analysis Messages:						
Contraindicating Typical Biopattern(s)						
Bacillus firmus	APPA(6),PyrA(85),ESC(21),dGLU(75).					
Brevibacillus choshinensis	PyrA(88),TTZ(12),GlyA(76),AGLU(12).					
Installed VITEK 2 Systems Version: 08.01 MIC Interpretation Guideline: AES Parameter Set Name:		Therapeutic Interpretation Guideline: AES Parameter Last Modified:				
Page 1 of 2						

Lanjutan (isolat 5)

BBLK MAKASSAR

BioMérieux Customer:
System #: 11530

Laboratory Report

Printed Sep 3, 2020 15:22 SGT
Printed by: LabSuper

Patient Name: Rahmadani, dwi
Isolate: 11604-1 (Approved)

Patient ID: 14082020

Card Type: BCL Bar Code: 2391275403217049 Testing Instrument: 000015f 277A8 (11530)
Setup: Technologist, Laboratory Supervisor(LabSuper)

Bionumber: 4203101000010060
Organism Quantity: **Selected Organism: Brevibacillus choshinensis**

Biochemical Details																	
1	BXYL	-	3	LysA	-	4	AspA	+	5	LeuA	(-)	7	PheA	+	8	ProA	
9	BGAL	-	10	PyrA	-	11	AGAL		12	AlaA	+	13	LyrA	+	14	BNA ₂	
15	APPA	+	18	CDEX	-	19	dGAL	-	21	GLYG	-	22	INO	-	24	MAL ₂	
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	dTPE	
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: 08 01
MIC Interpretation Guideline:
AES Parameter Set Name

Therapeutic Interpretation Guideline:
AES Parameter Last Modified:

Page 2 of 2

Hasil identifikasi bakteri (isolat 6)

BBLK MAKASSAR		Laboratory Report		Printed Sep 3, 2020 15:22 SGT Printed by LabSuper
Merieux Customer: System #: 11530				Patient ID: 14082020
Patient Name: Rahmadani, dwi Isolate: 11605-1 (Approved)				
Card Type: BCL Bar Code 2391275403217042		Testing Instrument: 000015F 277A8 (11530)		
Setup Technologist: Laboratory Supervisor(LabSuper)				
Bionumber: 0323101000410040				
Organism Quantity:		Selected Organism: Brevibacillus choshinensis		
Comments:				
McFarland: (1.80 - 2.20)				
Identification Information	Card:	BCL	Lot Number:	2391275403 Expires: May 24, 2021 12:00 SGT
	Completed:	Aug 15, 2020 05:14 SGT	Status:	Final Analysis Time: 13:83 hours
Organism Origin	VITEK 2			
Selected Organism	93% Probability		Brevibacillus choshinensis	
	Bionumber: 0323101000410040		Confidence: Low discrimination	
SRF Organism				
Analysis Organisms and Tests to Separate:				
Low Discrimination Organism				
Bacillus firmus OX(0),				
Brevibacillus choshinensis OX(100),				
Analysis Messages:				
Contraindicating Typical Biopattern(s)				
Bacillus firmus APPA(6), dGLU(75), PVATE(1),				
Brevibacillus choshinensis AspA(76), TTZ(12), GlyA(76), AGLU(12),				
Installed VITEK 2 Systems Version: 08 01 MIC Interpretation Guideline AES Parameter Set Name:			Therapeutic Interpretation Guideline AES Parameter Last Modified	
				Page 1 of 2

Lanjutan (isolat 6)

BBLK MAKASSAR

BioMerieux Customer:
System #. 11530

Laboratory Report

Printed Sep 3, 2020 15:24 SGT
Printed by: LabSuper
Patient ID: 14082020

Patient Name: Rahmadani, dwi
Isolate: 11605-1 (Approved)

Card Type: BCL Bar Code: 2391275403217042 Testing Instrument: 000015F277A8 (11530)
Setup Technologist: Laboratory Supervisor(LabSuper)

Bionumber: 0323101000410040
Organism Quantity: Selected Organism: *Brevibacillus choshinensis*

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: 08.01
MIC Interpretation Guideline:
AES Parameter Set Name:

Therapeutic Interpretation Guideline:
AES Parameter Last Modified: