

Molecular Biology

Cross References



HIMEDIA®

For life is precious

Director's Note:

Overview:

HiMedia have been dedicated to customer-oriented innovative product development since its inception and are proudly serving the global scientific community since 1975. Over the years the company has diversified from being a Microbiology company to becoming a leader in Biosciences including Molecular Biology. The company product range includes from dehydrated culture media and bases, antibiotic differentiation discs, animal cell culture, plant tissue culture, molecular biology, high-purity chemicals and laboratory aids (plasticware, sophisticated instruments).

Mission:

At HiMedia our passion is to serve the scientific community worldwide and support innovation by developing highest quality products that provide cost-effective customer solutions. The scientific team at HiMedia take pride in providing customized solutions to research scientists and industry so that they can perform complex specialized experiments at no additional costs.

In this endeavour, the Molecular Biology Researchers at HiMedia are developing new tools for different molecular biology applications using highest purity Molecular Biology grade chemicals. These ultra pure chemicals are also used to manufacture density gradient separation media, kits to obtain ultra pure genetic material, rapid detection of pathogens using PCR, epigenetics and protein purification.

HiMedia's mission is to continually provide solutions to scientists for most efficient sample processing, storage and transportation to ensure accurate molecular diagnosis. A dedicated technical team and product specialists in the molecular biology division at HiMedia are committed to provide on-field and customized technical solutions so that the researcher can focus on experimental design and results analysis.

Vision:

As a technology based Research and Development company, HiMedia are committed to simplifying sample processing and diagnosis to help the scientist improve specificity, sensitivity and efficiency of bioscience research. HiMedia have evolved immensely over the years to ensure highest customer satisfaction level.

Quality Objective:

HiMedia are ISO 9001:2008 accredited by BIS and DNV with ISO 13485, WHO GMP, USA FDA registered and CE Certification. HiMedia are proud to be associated with Strategic Partners covering all parts of India catering more than 20,000 customers across India, besides the coverage of more than 125 countries across the Globe. As a result, HiMedia have been honored with the nation's highest quality award "Rajiv Gandhi National Quality Award twice for the year 2011 and 2006, which re-confirms the commitment of HiMedia to develop quality system based Biosciences products in the service of humankind.



Quality control

All our products undergo stringent quality control required to maintain consistency and quality. A statistically valid number of samples are withdrawn from each batch as per the defined procedure. We have documented procedures for quality control in accordance with GMP for in process as well as finished products.

We have developed in-house testing criteria for all our products and have defined release criteria. Each lot is passed only if the product conforms to the release criteria. For customized products, additional quality control testing is available on request. Following are some common parameters included in the routine testing protocols.

pH – pH test is performed on routinely calibrated instruments. Calibration is done using reference standards traceable to NIST.

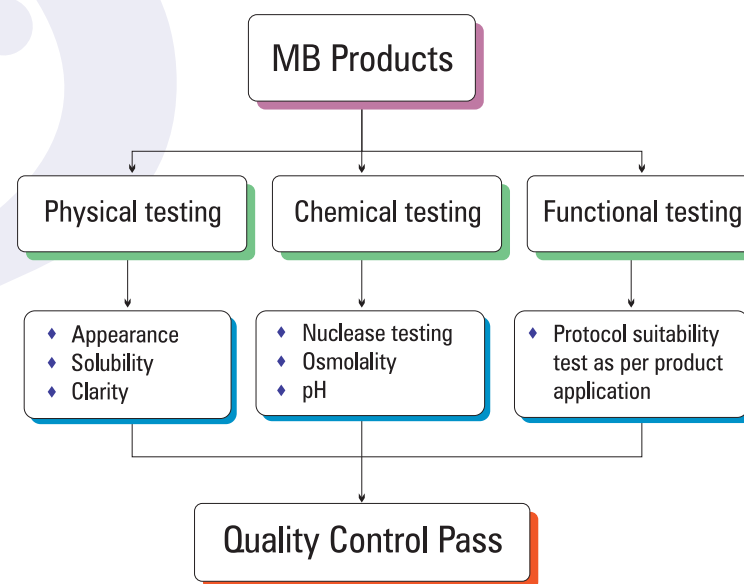
Osmolality – Osmolality of solutions is determined using freezing point depression (FPD). The freezing point of a solution is depressed in direct relation to the amount of solute in solution.

Test for DNase/RNase – All the MB grade chemicals and reagents are tested for the presence of enzyme impurities like DNase and RNase to make them suitable for use in various Molecular Biology applications. DNase and RNase are the two nucleases present in relatively high concentrations in the environment and in some biological materials. These nucleases frequently degrade DNA/RNA and contaminate molecular biological reagents like reaction buffers, enzymes such as reverse transcriptase, RNA polymerase etc.

Sterility – Each lot of sterile liquid reagent is tested for absence of bacterial and fungal contaminants using methods referenced in current USP monographs for sterility testing. This involves inoculation in Tryptone soya broth, Thioglycollate broth and Sabouraud's broth for 14 days and checking for contamination with reference to appropriate controls. All reagents and kits are validated for their respective suitability test.

Yield & Purity – Every nucleic acid (DNA/RNA) extraction kit is checked for yield and purity as per HiMedia's specifications to ensure consistent product quality. Nucleic acid concentration and purity plays a major role in downstream applications, such as PCR or other enzymatic reactions. The nucleic acids purified by HiMedia's extraction kits are free of protein and other contaminants that can inhibit any downstream reactions.

Sensitivity & Specificity – Each batch of the PCR reagents are tested for sensitivity and specificity. All the reagents assure very high sensitivity of detection in clinical samples and specifically ensure 100% exclusivity for non-target strains.



Technical Service

Our dedicated team of experts will be pleased to answer your technical queries. At HiMedia, we believe customer is our top priority. Our team can provide you with expert product guidance and advice, troubleshooting tips, product information and protocols for all your cell culture needs. Please email us at mb@himedialabs.com and info@himedialabs.com for all your technical queries. You can also log in your queries at www.himedialabs.com. You can call and fax us at the following numbers.

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Limited Warranty : HiMedia will replace, or at a customer's option credit customer's account the purchase price for products that fail to meet the current published manufacturer's specifications, provided such products are returned to HiMedia within 60 days of shipment.

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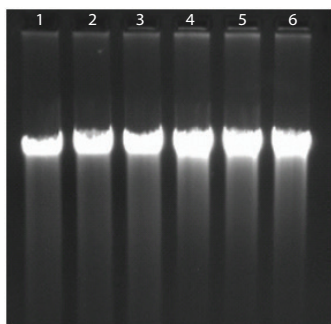
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Sr. No.	PRODUCT Description	HIMEDIA Product Code	MN Product Code	QIAGEN Product Code	AXYGEN Product Code	SIGMA Product Code	ZYMO Product Code	MO BIO Product Code	INVITROGEN Product Code
DNA Isolation Kits									
1	DNA-XPress™ Reagent	MB501	—	—	—	—	—	—	10503-027
2	HiPurA™ SPP Blood DNA Isolation Kit	MB541	—	—	—	—	—	12000	—
3	HiPurA™ Blood Genomic DNA Miniprep Purification Kit	MB504	740951	51104, 69504	AP-MN-BL-GDNA	NA2010	D3050, D3072	12200	K1820-00
4	HiPurA™ Blood Genomic DNA Midiprep Purification Kit	MB516	740954	51183	AP-MD-BL-GDNA	—	D3074, D3110	—	—
5	HiPurA™ Blood Genomic DNA Maxiprep Purification Kit	MB517	740950	51192	AP-MX-BL-GDNA	—	—	—	—
6	HiPurA™ 96 Blood Genomic DNA Purification Kit	MB521	740665	51161	AP-96-BL-GDNA	BLD9601	D3075, D3055	12296	—
7	HiPurA™ Plant DNA Isolation Kit (CTAB Method)	MB502	—	—	—	—	—	—	—
8	HiPurA™ Cotton DNA Isolation Kit	MB528	—	—	—	—	—	—	—
9	HiPurA™ Banana DNA Isolation Kit	MB533	—	—	—	—	—	—	—
10	HiPurA™ Algal DNA Purification Kit	MB561	—	—	—	—	D6007, D6001	—	—
11	HiPurA™ Plant Genomic DNA Miniprep Purification Kit	MB507	740770	69104	—	G2N10	D6020	13400	K1830-01
12	HiPurA™ Plant Genomic DNA Maxiprep Purification Kit	MB520	740772	68163	—	—	—	—	—
13	HiPurA™ 96 Plant Genomic DNA Purification Kit	MB523	740663	69181	—	—	D6021	13496	—
14	HiPurA™ Bacterial Genomic DNA Purification Kit	MB505	740952	69504	AP-MN-BT-GDNA	NA2100	D6007	12224	—
15	HiPurA™ 96 Bacterial Genomic DNA Purification Kit	MB548	740741	—	—	—	D6006	10196	—
16	HiPurA™ Streptomyces DNA Purification Kit	MB527	—	—	—	—	—	—	—
17	HiPurA™ Mycobacterium tuberculosis DNA Purification Kit	MB545	—	—	—	—	—	—	—
18	HiPurA™ Stool DNA Purification Kit	MB544	—	51504	—	—	D6010	12830	—
19	HiPurA™ Plasmid DNA Miniprep Purification Kit	MB508	740615	27104	AP-MN-P	NA0150	D4036	12301	K2100-10
20	HiPurA™ Plasmid DNA Midiprep Purification Kit	MB509	—	—	AP-MD-P	NA0200	D4025	12700	—
21	HiPurA™ Plasmid DNA Maxiprep Purification Kit	MB510	—	—	AP-MX-P	NA0300	D4027	12600	—

Sr. No.	PRODUCT Description	HIMEDIA Product Code	MN Product Code	QIAGEN Product Code	AXYGEN Product Code	SIGMA Product Code	ZYMO Product Code	MO BIO Product Code	INVITROGEN Product Code
22	HiPurA™ 96 Plasmid DNA Purification Kit	MB518	740625.1	27191	AP-96-P	NA9604	D4041	12396	K2110-04A
23	HiPurA™ Endotoxin free Plasmid DNA Miniprep Purification Kit	MB513	—	—	—	—	—	12311	—
24	HiPurA™ Endotoxin free Plasmid DNA Midiprep Purification Kit	MB514	—	—	—	PLED35	—	—	—
25	HiPurA™ Endotoxin free Plasmid DNA Maxiprep Purification Kit	MB515	—	—	—	NA0400	—	12611	—
26	HiPurA™ Yeast Genomic DNA Purification Kit	MB552	—	69504	—	—	D6007, D2002	12224	—
27	HiPurA™ 96 Yeast Genomic DNA Purification Kit	MB555	—	—	—	—	—	10196	—
28	HiPurA™ Yeast Plasmid DNA Purification Kit	MB550	—	—	—	—	D2004	—	—
29	HiPurA™ Fungal DNA Purification Kit	MB543	740770	69104	—	E5038	D2002	12224	—
30	HiPurA™ Soil DNA Purification Kit	MB542	740780	—	—	—	D6001	12888	—
31	HiPurA™ Water DNA Purification Kit	MB547	—	—	—	—	—	14900	—
32	HiPurA™ Mammalian Genomic DNA Purification Kit	MB506	740952	69504	—	G1N 10	D6016	12334	K1820-00

Comparative Data of Blood DNA using HiMedia's MB504 and competitor company

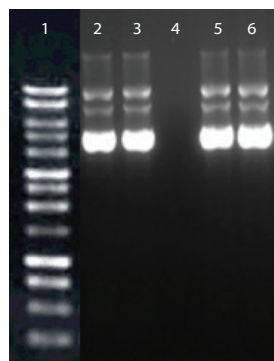


Lane 1 – 3 Competitor's Kit
Lane 4 – 6 HiMedia's MB 504

Lane no	A _{260/280}	Yield (ng/μl)
1) Competitor	1.65	22
2) Competitor	1.8	25.4
3) Competitor	1.72	27.2
4) MB504	1.79	31.6
5) MB504	1.64	31.8
6) MB504	1.71	30.3

Sr. No.	PRODUCT Description	HIMEDIA Product Code	MN Product Code	QIAGEN Product Code	AXYGEN Product Code	SIGMA Product Code	ZYMO Product Code	MO BIO Product Code	INVITROGEN Product Code
33	HiPurA™ Sperm Genomic DNA Purification Kit	MB522	740952	51304	—	—	D3050	—	—
34	HiPurA™ Forensic Sample Genomic DNA Purification Kit	MB524	—	56504	—	—	D3050	14000	—
35	HiPurA™ Bone DNA Purification Kit	MB525	—	—	—	—	—	12334	—
36	HiPurA™ Buccal DNA Purification Kit	MB531	740952	158822	—	—	D3050	—	—
37	HiPurA™ Silica Kit for DNA Isolation	MB503	—	—	—	—	—	—	—
38	HiPurA™ Quick Gel Purification Kit	MB539	—	28704	AP-GX-4	NA1111	D4007	12400	K2100-12
39	HiPurA™ PCR Product Purification Kit	MB512	740523	28104	AP-PCR	NA1020	—	12500	K3100-01
40	HiPurA™ 96 PCR Product Purification Kit	MB519	—	28181	AP-96-PCR	PCR9601	D4017	—	K3100-96A
41	HiPurA™ Multi-Sample DNA Purification Kit	MB554	—	—	AP-MN-MS-GDNA	—	—	—	—
42	HiPurA™ Insect DNA Purification Kit	MB529	—	—	—	—	D6016	—	—
43	HiPurA™ Food DNA Purification Kit	MB562	740945	69514	—	—	—	21000	—
44	HiPurA™ Paraffin-Embedded Tissue DNA Purification Kit	MB530	740980	56404	—	—	D3065	12250	—

Comparative data for MB508 - HiPurA™ Plasmid Miniprep Purification Spin Kit

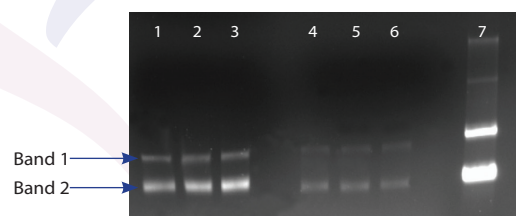


Lane 1 - 100bp DNA Ladder
Lane 2 - 3 HiMedia's MB 508 Kit
Lane 5 - 6 Competitor's Kit

Lanes	Yield (ng/μl)	A260/280
1	-	-
2	285.0	1.89
3	297.9	1.90
5	305.6	1.88
6	299.5	1.89

Comparative data for MB539 - HiPurA™ Quick Gel Purification Kit

Gel Extraction of the Plasmid Bands



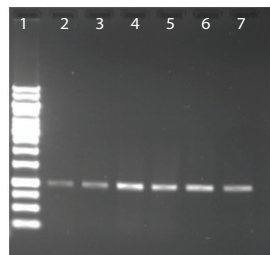
Lane 1 - 3 pUC19 plasmid bands extracted using Himedia's MB 539 Kit
Lane 4 - 6 pUC19 plasmid bands extracted using Competitor's Kit
Lane 7 pUC19 plasmid sample as such non-extracted as control

Lanes	Sample	% Recovery
1	Band 1 Band 2	Sample 1 58 78
2	Band 1 Band 2	Sample 2 59 87
3	Band 1 Band 2	Sample 3 53 86
4	Band 1 Band 2	Sample 4 47 68
5	Band 1 Band 2	Sample 5 56 71
6	Band 1 Band 2	Sample 6 44 67

Sr. No.	PRODUCT Description	HIMEDIA Product Code	MN Product Code	QIAGEN Product Code	AXYGEN Product Code	SIGMA Product Code	ZYMO Product Code	MO BIO Product Code	INVITROGEN Product Code
RNA Isolation Kits									
45	RNA-XPress™ Reagent	MB601	—	79306	—	—	—	—	—
46	HiPurA™ Total RNA Miniprep Purification Kit	MB602	740955	74104	AP-MN-MS-RNA	RTN70	—	15000	12183018A
47	HiPurA™ 96 Total RNA Purification Kit	MB612	—	—	—	RTN9602	—	—	—
48	HiPurA™ Plant and Fungal RNA Miniprep Purification Kit	MB603	740949	74903	—	E4913	R2024	13500	—
49	HiPurA™ Yeast RNA Purification Kit	MB611	740955	74104	—	—	R1002	15800	12183018A
50	HiPurA™ Bacterial RNA Purification Kit	MB613	740955	74104	—	—	R2014	15800	12183018A

Comparative Data of Himedia's MB539 - HiPurA™ Quick Gel Purification Kit

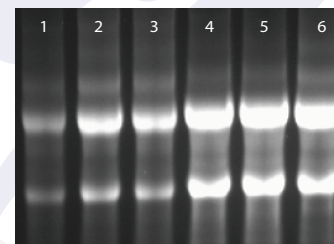
Gel Extraction of the 1kb band from Ladder



Lane 1 : 1kb DNA ladder
Lane 2 - 3 : Competitor 1
Lane 4 - 5 : Himedia's MB539
Lane 6 - 7 : Competitor 2

Lanes	Sample	% Recovery
1	1kb standard band	-
2	Competitor 1	51
3	Competitor 1	50
4	MB539	75
5	MB539	63
6	Competitor 2	60
7	Competitor 2	53

Comparative Data of Himedia's MB602 - HiPurA™ Total RNA Miniprep Purification Kit



Lane 1 - 3 : Competitor's kit
Lane 4 - 6 : Himedia's MB602

Lanes	Yield (ng/μl)	A _{260/280}
1 Competitor's kit	317.9	2.10
2 Competitor's kit	478.9	2.07
3 Competitor's kit	463	2.04
4 MB602	919.7	1.1
5 MB602	859	2.07
6 MB602	844.9	2.08

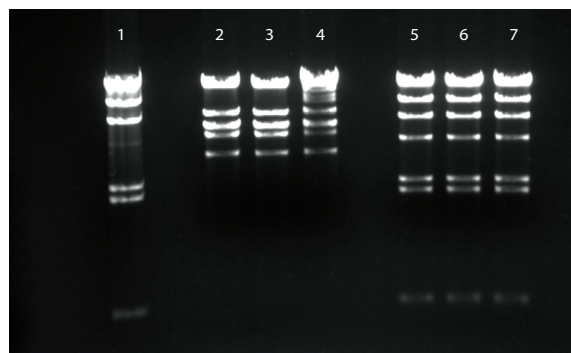
Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	FERMENTAS Product Code	BIO RAD Product Code	ABI/ INVITROGEN Product Code	PROMEGA Product Code	NEB Product Code	ROCHE Product Code
PCR & RT-PCR (Real-time / Reverse transcriptase) Reagents									
51	dATP solution, 100 mM, 0.25 ml	MBT054	—	—	—	18252015	U1205	N0440S	11934511001
52	dCTP solution, 100 mM, 0.25 ml	MBT055	—	—	—	18253013	U1225	N0356S	11934520001
53	dGTP solution, 100 mM, 0.25 ml	MBT056	—	—	—	18254011	U1215	N0442	11934538001
54	dTTP solution, 100 mM, 0.25 ml	MBT057	—	—	—	18255018	U1235	N0443	11934546001
55	dNTP solutions set, contains 100 mM each of dATP, dCTP, dGTP, dTTP	MBT058	DNTP100	R0181	—	10297018	U1420	N0446S	11969064001
56	dNTP solutions set, contains 10 mM each of dATP, dCTP, dGTP, dTTP	MBT079	DNTP10	—	—	—	—	—	—
57	A ready to use mix of dATP, dCTP, dGTP and dTTP solutions, 100mM	MBT059	—	R1121	—	—	—	—	—
58	A ready to use mix of dATP, dCTP, dGTP and dTTP solutions, 10mM	MBT078	D7295	R0241	170-8874	4303441	U1511	N0447S	11581295001
59	2X PCR TaqMixture (Conc : 2X)	MBT061	P4600	—	166-5009EDU	—	M7501	M0270S	11636103001
60	Hi-Chrom PCR Master Mix (Conc : 2X)	MBT089	R2523	AB-0785/B	—	—	—	—	—
61	Hi-SYBr Master Mix (Conc : 2X)	MBT074	S4438	K0221	170-8882	4472908	A6001	—	4673484001
62	Taq Polymerase (5U/μl) (with 10X Buffer A without MgCl ₂)	MBT060	D4545	EP0401	—	—	—	M0320S	—
63	Taq Polymerase (5U/μl) (with 10X Buffer A with MgCl ₂)	MBT060A	D1806	—	—	N8080241	—	M0273S	11146165001
64	Taq Polymerase (3U/μl) (with 10X Buffer A without MgCl ₂)	MBT060B	—	—	—	—	—	—	—
65	Taq Polymerase (3U/μl) (with 10X Buffer A with MgCl ₂)	MBT060C	—	—	—	—	—	—	—

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	FERMENTAS Product Code	BIO RAD Product Code	ABI/ INVITROGEN Product Code	PROMEGA Product Code	NEB Product Code	ROCHE Product Code
66	Taq Polymerase (1U/ μ l) (with 10X Buffer A without $MgCl_2$)	MBT060D	—	EP0403	—	—	—	—	—
67	Taq Polymerase (1U/ μ l) (with 10X Buffer A with $MgCl_2$)	MBT060E	—	—	—	—	—	—	11647679001
68	Hi-Proof DNA Polymerase (5U/ μ l) (Proof reading Enzyme)	MBT068	—	K0192	172-5300	—	M7741	—	—
69	Hi-Long Amp DNA polymerase (5U/ μ l)	MBT069	D6290	K0181	—	—	—	M0323S	3553426001
70	Hi-Temp DNA Polymerase (5U/ μ l) (Hot Start)	MBT070	S4438	AB-1057/A	170-8870	10966-018	M5001	M0495S	12032902001
71	ChromTaq DNA polymerase (1U/ μ l)	MBT088	D8312	AB-0406/B	—	—	M8291	M0325S	—
72	M-MuLV Reverse Transcriptase (Rnase H-) (200U/ μ l)	MBT072	M1302	EP0741	—	28025-013	M3681	M0253S	11062603001
73	AMV Reverse Transcriptase (20U/ μ l)	MBT073	—	NA	—	12328-019	M5101	M0277S	10109118001
74	Hi-PCR Kit	MBT075	CORET	—	—	—	—	E5000S	11578553001
75	Hi-cDNA Synthesis Kit	MBT076	RDRT	K1651	170-8896	—	A5000	E6300S	11117831001
76	HiScript One Step RT-PCR Kit	MBT095	HSRT	AB-1454/A	—	—	A1250	E5310S	11939823001
77	PCR Enhancer I Store at 2-8°C (A proprietary mixture containing Betaine) Application : For all types of PCR	MBT085	B0300	—	—	—	—	—	—
78	PCR Enhancer II Store at 2-8°C (A proprietary mixture containing DMSO) Application : For long PCR	MBT086	D9170	—	—	—	—	—	—
79	T4 DNA Ligase (200U/ μ l)	MBT091	D2886	EL0014	—	15224-017	M1801	M0202S	10481220001

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	FERMENTAS Product Code	BIO RAD Product Code	ABI/ INVITROGEN Product Code	PROMEGA Product Code	NEB Product Code	ROCHE Product Code
Ladders / Markers									
DNA Ladders									
80	50bp DNA Ladder	MBT084	D3812	SM1133	—	10416-014	G4521	N3236S	11721925001
81	100bp DNA Ladder	MBT049	D3687	SM1153	170-8202	15628-019	G2101	N3231S	11721933001
82	1kb DNA Ladder	MBT051	D3937	SM0311	170-8204	10787-018	G5711	N3232S	—
83	High Range DNA Ladder 250bp - 25kb	MBT090	—	—	—	—	—	—	—
84	High Throughput Ladder I 500bp - 5000bp	MBT052	—	—	—	—	—	—	—
85	High Throughput Ladder II 100bp - 3000bp	MBT053	—	—	—	10068-013	—	—	—
Protein Ladders									
86	Prestained protein ladder, wide range of 10 kDa-245 kDa (5 µl / lane)	MBT092	S8445	—	161-0373	LC5925	V8491	P7711S	—
Restriction Endonucleases									
87	EcoR I Source : <i>Escherichia coli</i>	MBRE001	R6265	ER0275	—	15202-013	R6011	R0101S	10703737001
88	BamH I Source : <i>Bacillus amyloliquefaciens</i>	MBRE002	R0260	ER0055	—	15201-023	R6021	R0136S	10220612001
89	Hind III Source : <i>Haemophilus influenzae</i>	MBRE003	R1137	ER0505	—	15207-012	R6041	R0104S	10656313001
90	Taq I Source : <i>Thermus aquaticus</i>	MBRE004	R9507	ER0671	—	15218-019	R6151	R0149S	10567671001
91	Not I Source : <i>Nocardia otitidis</i>	MBRE005	R8506	ER0595	—	15441-025	R6431	R0189S	11014706001

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92	Hinf I Source : <i>Haemophilus influenzae</i>	MBRE006	—	ER0801	—	15223-019	R6201	R0155S	10779652001
93	Hae III Source : <i>Haemophilus aegyptius</i>	MBRE007	R5628	ER0151	—	15205-016	R6171	R0108S	10693944001
94	Alu I Source : <i>Arthrobacter luteus</i>	MBRE008	R6885	ER0011	—	45200-029	R6281	R0137S	10239275001
95	EcoR V Source : <i>Escherichia coli</i>	MBRE009	—	ER0305	—	15425-010	R6351	R0195S	10667145001
96	Kpn I Source : <i>Klebsiella pneumoniae</i>	MBRE010	R1258	ER0521	—	15232-010	R6341	R0142S	10899186001
97	Pst I Source : <i>Providencia stuartii</i>	MBRE011	R7023	ER0615	—	15215-015	R6111	R0140S	10621625001

Comparative Data of restriction digestion of λ DNA using Himedia's MBRE001 - EcoR I and MBRE003 - Hind III

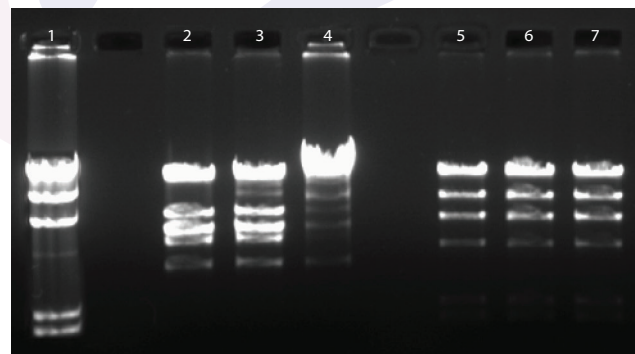


Restriction digestion using HiMedia's enzymes

Lane 1 : λ HindIII DNA ladder

Lane 2 - 4 : λ DNA digested using EcoR I MBRE001

Lane 5 - 7 : λ DNA digested using Hind III MBRE003



Restriction digestion using Competitor's enzymes

Lane 1 : λ HindIII DNA ladder

Lane 2 - 4 : λ DNA digested using EcoR I

Lane 5 - 7 : λ DNA digested using Hind III

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	FERMENTAS Product Code	BIO RAD Product Code	ABI/ INVITROGEN Product Code	PROMEGA Product Code	NEB Product Code	ROCHE Product Code
98	Sac I Source : <i>Streptomyces achromogenes</i>	MBRE012	R5268	ER1135	—	15240-201	R6061	R0156S	10669792001
99	Sca I Source : <i>Streptomyces albus</i>	MBRE013	—	ER0431	—	15436-017	R6211	R3122S	10775266001
100	Sph I Source : <i>Streptomyces phaeochromogenes</i>	MBRE014	R7135	ER0601	—	15413-016	R6261	R0182S	11026950001
101	Stu I Source : <i>Streptomyces tubercidicus</i>	MBRE015	—	ER0421	—	15438-013	R6421	R0187S	10753351001
102	Xba I Source : <i>Xanthomonas badrii</i>	MBRE016	R7260	ER0685	—	15226-012	R6181	R0145S	10674257001
103	Nco I Source : <i>Nocardia corallina</i>	MBRE017	R8761	ER0575	—	15421-019	R6513	R0193S	10835315001
104	Bgl II Source : <i>Bacillus globigii</i>	MBRE018	R6377	ER0082	—	15213-010	R6071	R0144S	10348767001
105	Hinc II Source : <i>Haemophilus influenzae RC</i>	MBRE019	—	ER0491	—	15206-014	R6031	R0103S	—
106	Mlu I Source : <i>Micrococcus luteus</i>	MBRE020	—	ER0561	—	15432-016	R6381	R0198S	10909700001
107	Sma I Source : <i>Serratia marcescens</i>	MBRE021	R4503	ER0665	—	15228-018	R6121	R0141S	10220566001
108	Pvu II Source : <i>Proteus vulgaris</i>	MBRE022	R2631	ER0635	—	25420-118	R6321	R0151S	10642690001

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
General Molecular Biology Buffers					
109	6M Guanidine HCl	ML001-100ML	—	—	—
110	8M Guanidine HCl	ML002-100ML	G7294	J842	—
111	6M Guanidine thiocyanate	ML003-100ML	50983	K965	—
112	3M Sodium acetate, pH 5.2-5.4 Used in DNA precipitation	ML009-100ML	S7899	E498	AM9740
113	5M Sodium chloride	ML008-100ML	S5150	E529	24740-011
114	5M Sodium hydroxide	ML026-100ML	656046	—	—
115	0.15 M Sodium hydroxide	ML107-10X500ML	—	—	—
116	1M Calcium chloride Solution	ML094-100ML	21115	E506	—
117	1M Magnesium chloride Solution	ML115-100ML	63020	E525	AM9530G
118	Potassium acetate buffer 3M with respect to potassium, 5M with respect to acetate pH 5.5-5.7	ML006-100ML	95843	E130	—
119	1M Potassium acetate, pH 7.5	ML117-100 ML	60038	J616	—
120	5M Potassium acetate, pH 7.5-9.0	ML005-100ML	95843	—	—
121	5M Potassium hydroxide	ML004-100ML	—	—	—
122	10X PBS, Molecular Biology Grade, pH 7.4 Phosphate Buffered Saline	ML023-5X100ML	P5493	J373	70011-044
123	1X PBS Solution	ML116-100ML	—	E504	10010-056
124	10X TE Buffer, pH 8.0 Used for solubilization of DNA at 1X concentration	ML012-100ML	—	—	—
125	1X TE Buffer, pH 8.0 Used for solubilization of DNA	ML060-100ML	93283	E112	AM9849
126	0.5M EDTA, pH 8.0	ML014-100ML	—	—	AM9260G

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
127	1M HEPES, pH7.3	ML114-100ML	H0887	J848	15630-106
128	20% SDS	ML007-100ML	5030	0-837	AM9820
129	1M Tris-Cl, pH 6.4	ML054-100ML	—	—	—
130	1M Tris-Cl, pH 7.0	ML090-100ML	P2413	N469	AM9851
131	1M Tris-Cl, pH 7.2	ML027-100ML	T2069	—	—
132	1M Tris-Cl pH 7.4	ML028-100ML	T2194	—	—
133	1M Tris-Cl, pH 7.6	ML110-100ML	T2444	—	—
134	1M Tris-Cl, pH 7.8	ML111-100ML	—	—	—
135	1M Tris-Cl, pH 8.0	ML013-100ML	T3038	E199	15568-025
136	1M Tris-Cl Stock Solutions (6 Packs, 100 ml each) A pack of 1M Tris-Cl Solutions of pH 7.0, 7.2, 7.4, 7.6, 7.8 and 8.0	ML108-1PK	T-PAC-C	—	—
137	1M Tris-Cl Stock Solutions (6 Packs, 1 lt each) A pack of 1M Tris-Cl Solutions of pH 7.0, 7.2, 7.4, 7.6, 7.8 and 8.0	ML109-1PK	T-PAC-M	—	—
138	1X Tris-EDTA, pH 7.0	ML118-100ML	—	—	—
139	10X Tris EDTA, pH 9.0 Store at 2-8°C Used for heat induced epitope recovery	ML087-500ML	—	—	—
140	10X TBS, Molecular Biology Grade Tris Buffered Saline	ML029-5X100ML	T5912	J640	—
141	10X TBST Store at 2-8°C Mixture of Tris Buffered Saline and Tween®-20	ML088-1L	—	K873	—
142	10X Citrate Buffer, pH 6.1 Store at 2-8°C Used for heat induced epitope recovery	ML089-500ML	—	—	00-5000
143	2X BBS Solution Borate Buffered Saline	ML093-500ML	14280	—	—

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
144	STET Buffer Mixture of Sodium chloride, Tris-Cl, EDTA and Triton X-100	ML098-500ML	85833	J613	—
145	ACD Solution A (Acid Citrate Dextrose Solution A) Used as anti-coagulant to preserve blood samples	ML099-25ML	—	—	—
146	ACD Solution B (Acid Citrate Dextrose Solution B) Used as anti-coagulant to preserve blood samples	ML100-25ML	—	—	—
147	1M MES Solution [2-(N-Morpholino) ethanesulfonic acid]	ML101-100ML	M1317	—	—
148	1M MOPS Solution [3-(N-Morpholino) propanesulfonic acid]	ML102-100ML	M1442	—	—
149	0.2 M MOPS, pH 7.0 [3-(N-Morpholino) propanesulfonic acid]	ML031-100ML	—	—	—
150	SM Buffer (Mixture of Sodium chloride, Magnesium sulphate and Gelatin) Used as phage diluent and storage buffer	ML103-100ML	—	J614	—
151	1M Sorbitol Solution	ML104-100ML	—	—	—
152	TNT Buffer (Mixture Tris-Cl, Sodium chloride and Tween®-20)	ML105-100ML	89554	J612	—
153	Propidium iodide Solution (1mg/ml) Store at 2-8°C Used as nuclear counter stain	ML067-10ML	P4864	—	P3566
154	Buffer solution pH 4.0 (±0.02) Store at 2-8°C	ML061-500ML	239038	—	—
155	Buffer solution pH 7.0 (±0.02) Store at 2-8°C	ML062-500ML	239089	—	—
156	Buffer solution pH 9.2 (±0.02) Store at 2-8°C	ML063-500ML	—	—	—

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
157	Molecular Biology Grade Water (DEPC-treated, Nuclease and Protease free)	ML024-500ML	95284	E476	AM9915G
158	Molecular Biology Grade Water (Nuclease & Protease free)	ML064-500ML	W4502	—	AM9938
159	Molecular Biology Grade Water for RT-PCR Store at -20°C (Nuclease & Protease free)	ML065-1.5ML	—	—	—
160	Protease inhibitor cocktail Store at 2-8°C Used in preserving cellular proteins	ML051-1ML	P9599	M221	—
161	Folin's Reagent Used for quantitative estimation of proteins	ML059-125ML	F9252	—	—
162	Bradford's Reagent Store at 2-8°C Used for quantitative estimation of proteins	ML106-100ML	B6916	M172	—
163	Biuret Reagent Store at 2-8°C Used for quantitative estimation of proteins	ML122-100ML	B3934	M262	—

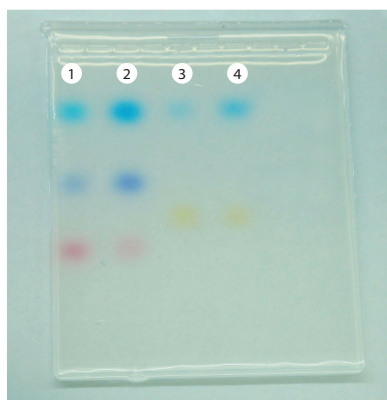
Buffers for Nucleic Acid Electrophoresis

164	10X TAE Used for gel electrophoresis after dilution to working concentration	ML010-100ML	T9650	—	15558-026
165	50X TAE Used for gel electrophoresis after dilution to working concentration	ML016-100ML	67996	K915	24710-030
166	10X TBE Used for gel electrophoresis after dilution to working concentration	ML011-100ML	T4415	0-658	15581-044
167	20X TBE Used for gel electrophoresis after dilution to working concentration	ML022-100ML	—	—	—

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
168	50X TBE Used for gel electrophoresis after dilution to working concentration	ML017-100ML	—	—	—
169	6X Gel Loading Buffer Store at 2-8°C Glycerol based gel loading buffer for DNA gels with two tracking dyes	ML015-6X1ML	B6924	E190	—
170	5X TD Solution Store at 2-8°C Glycerol based gel loading buffer for DNA gels with two tracking dyes	ML019-6X1ML	—	—	—
171	10X Gel Loading Buffer Store at 2-8°C Glycerol based gel loading buffer for DNA gels with two tracking dyes	ML025-5X0.5ML	—	—	10816-015
172	5X Gel Loading Buffer Store at -20°C Glycerol based gel loading buffer for DNA gels with three tracking dyes	ML086-6X1ML	—	E269	—
173	6X Orange Gel Loading Buffer Store at -20°C Glycerol based gel loading buffer for DNA gels with two tracking dyes	ML092-5X1ML	—	—	10482-028
174	5X Sucrose Gel Loading Dye Store at -20°C Sucrose based gel loading buffer for DNA gels with two tracking dyes	ML112-1ML	G7654	E274	—
175	5X RNA Gel Loading Buffer Store at 2-8°C Glycerol based gel loading buffer for RNA gels with two tracking dyes	ML048-4X0.25ML	R1386	—	AM8552
176	10X MOPS Electrophoresis Buffer Used for RNA gel electrophoresis after dilution to working concentration	ML050-2X500ML	—	E526	—
177	Hi-SYBr Safe Gel Stain (10,000X in DMSO) Store at -20°C Used in staining of DNA / RNA gels	ML053-100 µl	S9430	N391	S33102

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
178	20X SSC Saline Sodium Citrate	ML030-500ML	S6639	0-804	15557036
179	Alkaline Transfer Buffer Used in Southern Hybridization	ML032-100ML	—	E566	—
180	Denaturation Solution Used in Southern Hybridization	ML033-100ML	N1531	E540	—
181	Neutralization Buffer A (for transfer to uncharged membranes) Used in Southern Hybridization	ML034-100ML	N1532	—	—
182	Neutralization Buffer B (for transfer to nylon membranes) Used in Southern Hybridization	ML035-100ML	N3910	—	—
183	20X SSPE Buffer, pH 7.4 Saline Sodium Phosphate EDTA buffer	ML055-200ML	S2015	0-810	15591035
184	Denhardt's Solution (100X) Store at -20°C Used as a blocking reagent during Northern or Southern hybridization	ML095-50ML	D2532	E257	750018

Comparative Data of Gel loading buffers with different tracking dyes - ML086 & ML092



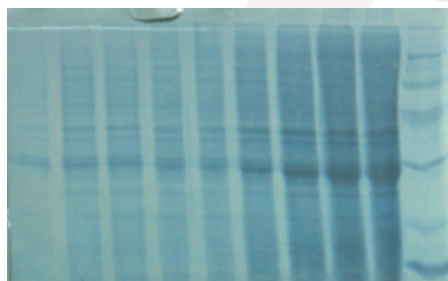
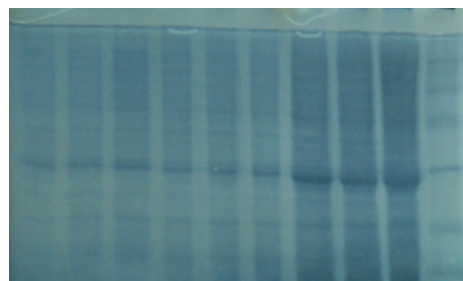
Lanes	Product Name	No. of Tracking Dyes
1	Competitor's 5X loading dye	3
2	Himedia's ML086 - 5X Gel Loading Buffer	3
3	Competitor's 6X loading dye	2
4	Himedia's ML092 - 6X Orange Gel Loading Buffer	2

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
Buffers for Protein Electrophoresis					
185	2X Laemmli Buffer Laemmli buffer is specially formulated for protein sample preparation to be used in the Laemmli SDS-PAGE system	ML021-5X6ML	S3401	E270	—
186	5X Laemmli Buffer Laemmli buffer is specially formulated for protein sample preparation to be used in the Laemmli SDS-PAGE system	ML121-5ML	—	M337	—
187	5X Protein Loading Buffer (Reducing) Store at -20°C Used for protein sample preparation and loading	ML096-5ML	—	—	—
188	5X Protein Loading Buffer (Non-Reducing) Used for protein sample preparation and loading	ML097-5ML	—	M266	—
189	Acrylamide/Bis-acrylamide solution 30% (19:1) Store at 2-8°C	ML036-100ML	A3449	E339	—
190	Acrylamide/Bis-acrylamide solution 30% (29:1) Store at 2-8°C	ML037-100ML	A3574	E344	—
191	Acrylamide/Bis-acrylamide solution 30% (36.5:1) Store at 2-8°C	ML038-100ML	A3699	E347	—
192	Acrylamide/Bisacrylamide Solution 40% (37.5:1) Store at 2-8°C	ML083-100ML	A6050	M157	—
193	Acrylamide/Bisacrylamide Solution 40% (29:1) Store at 2-8°C	ML084-100ML	A2792	0-311	—
194	Acrylamide/Bisacrylamide Solution 40% (19:1) Store at 2-8°C	ML085-100ML	A2917	0-496	AM9024
195	2.5X Tris-SDS Buffer (pH 8.8) Store at 2-8°C Used in SDS-PAGE	ML039-2X500ML	—	M197	—

Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
196	5X Tris-SDS Buffer (pH 6.8) Store at 2-8°C Used in SDS-PAGE	ML040-2X500ML	—	M198	—
197	5X Tris-Glycine-SDS Gel Running Buffer Store at 2-8°C Used in SDS-PAGE	ML041-2X500ML	—	—	—
198	10X Tris-Glycine-SDS Gel Running Buffer Used in SDS-PAGE	ML042-2X500ML	T7777	0-783	LC2675
199	20X MOPS-SDS Running Buffer Used in SDS-PAGE	ML119-2X500 ML	—	K855	NP0001
200	20X MES-SDS Running Buffer Used in SDS-PAGE	ML120-2X500 ML	—	K856	NP0002
201	10X Tris-acetate-SDS Running Buffer Used in SDS-PAGE	ML113-2X500 ML	—	K858	LA0041
202	10X Transfer Buffer Store at 2-8°C Used in Western Blot Hybridization	ML043-2X500ML	—	N789	NP0006
203	10X Tris-Glycine Buffer, pH 8.3 Used in PAGE and Western Blotting	ML056-200ML	—	0-307	—
204	Blocking Buffer Store at 2-8°C Used in Western Blot Hybridization	ML044-100ML	B6429	—	00-0105
205	Ponceau-S Stain Used for staining of Protein gels	ML045-250ML	P7170	K793	—
206	Ponceau-S Fixative Used for fixing of protein bands on membrane	ML052-250ML	—	—	—
207	Coomassie Brilliant Blue Stain Used for staining of Protein gels	ML046-250ML	B8522	—	—

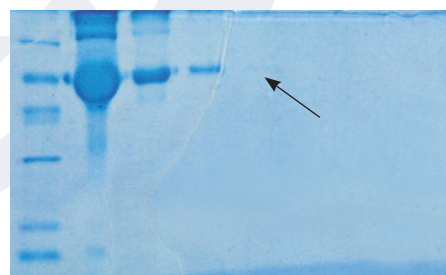
Sr. No.	PRODUCT Description	HIMEDIA Product Code	SIGMA Product Code	AMRESCO Product Code	INVITROGEN/ LIFE TECHNOLOGIES Product Code
208	SafeBlue Protein Stain Used for destaining-free staining of protein gels	ML091-500ML	G1041	K217	LC6060
209	Hi-Zinc Stain Used for staining of Protein gels	ML057-125ML	—	M274	—
210	Hi-Zinc Destain Used for destaining of Protein gels	ML058-125ML	—	M275	—
211	Zinc Stain-Destain Kit (A pack of 125 ml each solution)	ML124-1PK	—	M277	—
212	Silver Staining Kit	ML123-1KT	85181	M227	—

Comparative Data of ML124 - Zinc Stain - Destain Kit

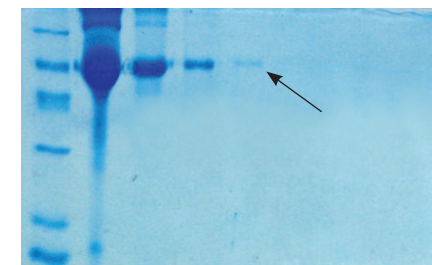


SDS - PAGE gel stained using Zinc Stain of Competitor company (Left) and HiMedia's ML124 Zinc Stain - Destain Kit (Right)

Comparative Data of ML091 - SafeBlue Protein Stain



SDS - PAGE gel stained using Competitor's protein stain



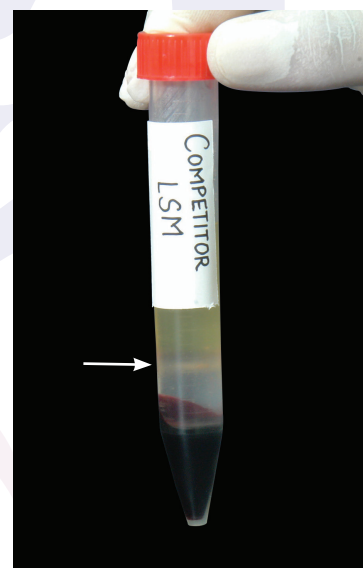
SDS - PAGE gel stained using HiMedia's ML091 SafeBlue Protein Stain

Sr. No.	HIMEDIA Product Code	GE Product Code	SIGMA Product Code	PAA Product Code
HiSep™				
213	HiSep™ LSM 1077 (1.0770 ± 0.0010 g/ml)	17-5442-02	10771	J11-004
214	HiSep™ LSM1073 (1.073 g/ml)	17-5446-52	—	—
215	HiSep™ LSM 1084 (1.084 ± 0.001 g/ml)	17-5446-02	10831	—
216	GranuloSep™ GSM 1119 (1.119 g/ml)	—	11191	—
217	Ficoll 400-20%	—	F5415	—

HiMedia's HiSep™ LSM 1077 - LS001 in comparison with Competitor's lymphocyte separation media



HiSep™ LSM 1077 - LS001



Competitor's separation media



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For life is precious

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