Forensic Molecular Biology

Solutions Manual

Version 3.0

Initials: RC)

Date: 1/16/96

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Date: 2/2/9/

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S108 SP, 2X				

Initials: RCS

Date: 2/2/95

S018 Analytical Gel Loading Buffer lot number:

standard batch size: 100 mL

Ingredients	final concentration	amount
RM020 bromophenol blue	0.25%	0.25 ± 0.01 g
RM217 xylene cyanol	0.25%	0.25 ± 0.01 g
RM040 Ficoll 400	12.5%	12.5 ± 0.1 g
S009 EDTA, 0.5M	50. m M	10.0 ± 0.1 mL
RM083 TAE, 10X	5.0 X	50.0 ± 0.5 mL

Procedure

Combine the TAE, EDTA, and Ficoll.

Mix well. The solution may need to be heated gently to dissolve the Ficoll. Add the bromophenol blue and xylene cyanol.

Mix well.

When all the solids are dissolved, bring up to volume using deionized water. Filter sterilize.

Dispense 1.5 mL aliquots into 1.5 mL eppendorf tubes.

Store at -20°C.

Data Log	source	lot	amount
RM020 bromophenol blue			-
RM217 xylene cyanol			
RM040 FicoII 400			autici nacional con altro comisposi e control con los consumentos de la consumenta de la co
S009 EDTA, 0.5M			
RM083 TAE, 10X			
mada hu			
made by:		date:	

Initials:

Date: 2/2/95

S060 Calibration Control

lot number:

page 1 of 2

Ingredients	initial concentration (ng/μL)	initial volume (μL)	final concentration	final volume (μL)
RM221 K562 DNA			7.5 ng/µĿ	
S021 yield gel loading buffer	5 X		1 X	
S059 sterile water	des ess cas sau			And sign date that

Calculations

Record the initial concentration in $ng/\mu L$ and the initial volume in μL of the K562 DNA received from the manufacturer.

Calculate the final volume according to equation 1.

(final volume) = (initial DNA concentration)(initial DNA volume) equation 1 (7.5 ng/ μ L)

Record the final volume above. The final volume is the total batch size.

Calculate the amount of buffer to be added according to equation 2.

(buffer volume) = 0.2(final volume) equation 2

Calculate the amount of sterile water to be added according to equation 3.

(water volume) = [0.8 * (final volume)] - (initial DNA volume) equation 3

Record the buffer and water volumes above.

To check the calculations, add together the initial volumes of DNA, loading buffer, and sterile water.

The sum of the initial volumes must be equal to the calculated final volume.

			. •
Initials: RY	Date: 2/2	185	
S060 Calibration Control	lot n	umber:	
			page 2 of 2
Procedure			
Combine the DNA, loading buffer,	and sterile water		
Mix well.			
Using sterile pipet tips, dispense 2	200 μL aliquots in	to sterile 1.	5 mL eppendorf tubes
Store at -20°C.			
Data Log	source	lot	amount
RM221 K562 DNA			
S021 yield gel loading buffer			
S059 sterile water	***************************************	***	

QC026 Gel Electrophoresis

Initials:

Ld

Date: 0/8/97

S010 Cell Lysis Buffer (CLB)

lot number:

standard batch size: 2 L

Ingredients	final concentration	amount
RM068 sucrose	320 mM	219 ± 3 g
RM073 TRIS	10 mM	2.4 ± 0.1 g
RM046 magnesium chloride, hexahydrate	5 mM	2.0 ± 0.1 g
RM075 Triton X-100	1.0 %	20 ± 1 mL
RM096 hydrochloric acid		

Procedure

Dissolve the sucrose, TRIS, and magnesium chloride in approximately 1.5 L deionized water.

Add the Triton to the solution.

Adjust the pH to 7.6 with hydrochloric acid

Mix well.

Adjust the volume to 2 L with deionized water.

Filter sterilize.

Dispense into sterile 50 mL centrifuge tubes.

Store at 2-8° C.

Data Log	source	lot	amount
RM068 sucrose	MATERIAL PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS	*	-
RM073 TRIS	**************************************	-	OPPORTUNITATION OF THE PROPERTY OF THE PROPERT
RM046 magnesium chloride, hexahydrate		Walterford Conference of Confe	*
RM075 Triton X-100	Section in the contract of the		
RM096 hydrochloric acid	time de la companya d	Tanadicinya de van alaman a serienta de la companya	MATERIAL PROPERTY AND ADMINISTRATION OF THE PROPERT
Quality Control			
QC023 QuantiBlot Quality Control of Solution	s- test 150 μ	L of solution	
final pH:	spec:	7.6 ± 0.1	
made by:	da	te:	

Initials: RS

Date: 2/2/85

S010 Cell Lysis Buffer (CLE	3)
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lot number: _____

standard batch size: 2 L

Ingredients	final concentration	amount
RM068 sucrose	320 mM	219 ± 3 g
RM073 TRIS	10 m M	$2.4 \pm 0.1 g$
RM046 magnesium chloride, hexahydrate	5 m M	2.0 ± 0.1 g
RM075 Triton X-100	1.0 %	20 ± 1 mL
RM096 hydrochloric acid		

Procedure

Dissolve the sucrose, TRIS, and magnesium chloride in approximately 1.5 L deionized water.

Add the Triton to the solution.

Adjust the pH to 7.6 with hydrochloric acid

Mix well.

Adjust the volume to 2 L with deionized water.

Filter sterilize.

Dispense into sterile 500 mL bottles.

Store at 2-8°C.

Data Log	source	lot	amount
RM068 sucrose	MARKATA AND AND AND AND AND AND AND AND AND AN	***************************************	
RM073 TRIS			
RM046 magnesium chloride, hexahydrate			
RM075 Triton X-100			
RM096 hydrochloric acid			
Quality Control			
QC023 QuantiBlot Quality Control of Solutions	s- test 150 μL	of solution	
final pH:	spec:	7.6 ± 0.1	

Initials: Res

Date: 2/2/95

S064 Cell Pellet Control

lot number:

page 1 of 2

Ingredients	concentration of cells	total volume (mL)	cells per aliquot	aliquot volume (mL)
RM243 K562 cells			1 X 10 ⁶	
S034 phosphate buffered saline (PBS)				

Calculations

Record the concentration of K562 cells in the suspension received from the manufacturer.

Record the total volume. This is the batch size.

Calculate the volume (in mL) which yields 1 X 10⁶ cells according to equation 1.

(aliquot volume) =

(1 X 10⁶cells)

equation 1

(concentration of cells)

The aliquot volume must fit into a 1.5 mL eppendorf tube. The concentration of the cell suspension may have to be adjusted.

If the cell concentration is too low, the cells may be spun at $180 \times g$ for 5 minutes at 4° C. Remove the excess media to give the desired concentration.

If the cell concentration is too high, PBS may be added to reach the desired concentration. After adding PBS, make sure the cells are well suspended before aliquoting.

Record the calculated aliquot volume.

Procedure

The following steps must be done on ice or at 4°C.

Bring the cell suspension up to the desired final volume.

Suspend the cells evenly by pipetting up and down or by gently inverting the container.

Quality Control

QC024 Non-Organic Extraction

QC027 Southern Blotting and Hybridization

Initials: RG Date: 2/2/95

S022 Chelex, 5%

lot number:

standard batch size: 500 mL

Ingredientsfinal concentrationamountRM027 Chelex 1005. % $25 \pm 2 g$ S059 sterile water (guideline)--- 450 \pm 50 mL

Procedure

Filter sterilize approximately 600 mL deionized water.

Pour the water into a 500 mL bottle.

Save the bottom container from the disposable filter unit.

Autoclave the water at 250°F for 30 minutes.

Add the Chelex to the bottom container of the filter unit.

Allow the water to cool after autoclaving.

Add sterile water to the Chelex to a volume of 500 mL using the graduation markings on the disposable filter container.

Mix on a magnetic stir plate.

While the stock solution is mixing, aliquot 10 mL each into 15 mL centrifuge tubes.

Store at 2-8°C.

Data Log	source	lot	amount
RM027 Chelex 100			
S059 sterile water	Market Commence of the Commenc		

Quality Control

QC014 Chelex Extraction

made	by:	date:	
	2		

		y y commence	. •	
Initials: RU	Date: 2	12/25		
S022 Chelex, 5%		lot number:		
standard batch size: 400 mL				
Ingredients	final concentra	tion	amount	
RM536 DNA Extraction Reagent	5 %		100 mL	
S059 sterile water	an no no		300 mL	
Procedure				
Filter sterilize approximately 300 m	nL deionize	d water.		
Pour the water into a 500 mL bottl	e.		. •	
Save the bottom container from the	e disposabl	e filter unit.		
Autoclave the water at 250°F for 3	0 minutes.			
Add 100 mL of DNA Extraction Re	agent to the	e bottom con	tainer of the	filter unit.
Allow the water to cool after autocl	laving.			
Add sterile water to the the DNA E graduation markings on the dispos			olume of 400	0 mL using
Mix on a magnetic stir plate.				
While the stock solution is mixing,	aliquot 10 r	nL each into	15 mL centri	fuge tubes.
Store at 2-8°C.				
Data Log	source	lot	amount	
RM536 DNA Extraction Reagent _	All made an index statement and an index of particular and analysis for the same of the sa			MANA
S059 sterile water				acar
Quality Control				

QC014 Chelex Extraction

Initials: Ref

Date: 2/2/85

S082 Chelex, 20%

lot number:

standard batch size: 500 mL

Ingredients

final

amount

concentration

RM027 Chelex 100

20. %

 $100 \pm 2 g$

S059 sterile water

 450 ± 50 mL (guideline)

Procedure

Filter sterilize approximately 600 mL deionized water.

Pour the water into a 500 mL bottle.

Save the bottom container from the disposable filter unit.

Autoclave the water at 250°F for 30 minutes.

Add the Chelex to the bottom container of the filter unit.

Allow the water to cool after autoclaving.

Add sterile water to the Chelex to a volume of 500 mL using the graduation markings on the disposable filter container.

Mix on a magnetic stir plate.

While the stock solution is mixing, aliquot 10 mL each into 15 mL centrifuge tubes.

Store at 2-8°C.

Quality Control

QC017 Differential Extraction

Initials: RCS Date: 2/2/95

lot number:

standard batch size: 500 mL

Ingredients final amount

concentration

RM088 chloroform 96. % $480 \pm 3 \text{ mL}$

RM089 isoamyl alcohol 4. % 20 \pm 3 mL

Procedure

NOTE: Use only glass graduated cylinders and containers.

Measure the isoamyl alcohol into a 500 mL brown bottle.

Add the chloroform.

Store at 2-8°C in a flammable materials refrigerator.

Data Log source lot amount

RM089 isoamyl alcohol

Initials: RU	Date:	2/2	195
S104 Chromogen Solutio	n	lot nur	mber:
standard batch size: 30 m	L		
Ingredients	fina concer	al ntration	amount
RM435 chromogen:TMB	***************************************		60 mg
RM009 ethanol, 100% reag	jent grade		30 mL
Procedure			
Bring bottle of chromogen:	MB to room ter	mperature.	•
Before opening, lightly tap t	he bottle on the	e counter to	to bring its contents to the bottom.
Carefully remove the stoppe temperature ethanol.	er and reconstit	ute the chr	romogen:TMB with the room
CAUTION: DO NOT USE E ONLY USE 100% REAGEN			METAL CONTAINER;
Recap the bottle and seal v	vith Parafilm.		
Tilt the bottle several times rubber cap.	to ensure that a	all the pow	der is removed from within the
Shake on an orbital shaker	for about 30 mi	nutes.	
Store at 2-8°C and away from	om rust.		
The solution is stable for six	c months.		
Data Log	source	lot	amount
RM435 chromogen		THE OWNER OF THE PARTY OF THE P	MANAGEM WASSESSALE PROPERTY OF THE PROPERTY OF
RM009 ethanol, 100%			
made by:		_ date:	***************************************

Initials: RO

Date: 2/2/25

lot number: _____

standard batch size: 20 L

Ingredients

final

amount

concentration

RM005 sodium chloride

1.5 M

 $1750 \pm 50 \, \mathrm{g}$

RM004 sodium hydroxide, 10N 0.5 M

1000 ± 100 mL

Procedure

Measure the sodium chloride into a 20 L carboy with approximately 5-10 L deionized water.

Add the sodium hydroxide solution.

Mix well on magnetic stir plate using a stir bar.

Raise to the final volume with deionized water.

Mix well.

Measure and record the pH using pH paper.

Store at room temperature.

Data Log

source lot

amount

RM005 sodium chloride

RM004 sodium hydroxide, 10N

Quality Control

final pH: _____ spec: ≥ 12

Initials: RO

Date: 2/2/85

S094 Digest Buffer

lot number: _____

standard batch size: 2 L

Ingredients	final concentration	amount
S009 EDTA, 0.5M	10. m M	40 ± 2 mL
RM073 TRIS	10. m M	2.4 ± 0.2 g
RM0005 sodium chloride	50. m M	$5.8 \pm 0.4 g$
S001 SDS, 20%	2.0 %	200 ± 2 mL
RM096 hydrochloric acid		

Procedure

Add the EDTA, TRIS, sodium chloride, and SDS to approximately 1.5 L deionized water. Adjust the pH to 7.5 with hydrochloric acid.

Bring up to the final volume with deionized water.

Mix well.

Measure and record the final pH.

Aliquot into 50 mL centrifuge tubes.

Store at room temperature.

Data Log	source	lot	amount
S009 EDTA, 0.5M	***************************************		**************************************
RM073 TRIS			
RM0005 sodium chloride		-	
S001 SDS, 20%	1907/99009900000000000000000000000000000	Mentalista e constituita de la constituita del constituita de la constituita de la constituita de la constituita del constituita de la con	
RM096 hydrochloric acid	nord house the contract with the contract of t	MMMMMMMMMMMmmmmmmmmmmmmmmmmmmmmmmmmmmm	
Quality Control			
final pH:		specification:	$7.5~\pm~0.1$
QC023 QuantiBlot Quality Control of Sc	olutions- Test	150 μL of so	lution
made by:		date:	

Initials:

RU

Date: 10/31/85

S061 Digestion Control

lot number:

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INGREDIENTS	initial concentration (ng/μL)	initial volume (μL)	final concentration	final volume (μL)
RM221 K562 DNA			2 ng/μL	
S039 TE, 1X	1 X			

Calculations

Record the initial concentration in $ng/\mu L$ and the initial volume in μL of the K562 DNA received from the manufacturer.

Calculate the final volume according to equation 1.

(final volume) = (initial DNA concentration)(initial DNA volume) equation 1 (2 $ng/\mu L$)

Record the final volume above. The final volume is the total batch size.

Calculate the amount of 1X TE to be added according to equation 2.

(TE volume) = (final volume) - (initial DNA volume) equation 2

Record the TE volume above.

To check the calculations, add together the initial volumes of DNA and 1X TE.

The sum of the initial volumes must be equal to the calculated final volume.

Initials: RC	Date:	C6/31/85		
S061 Digestion Control		lot number:		
			pa	ge 2 of 2
Procedure				
Combine the DNA and 1X TE. I frozen, resuspend for at least				the DNA is
Mix well.				
Using sterile pipet tips, dispense	250 μL alic	quots into 1.8 m	L microcentr	ifuge tubes.
Store at -20° C.				
Data Log	source	lot	amount	
RM221 K562 DNA			***************************************	
S039 TE, 1X	***************************************		***************************************	
Quality Control				
QC026 Gel Electrophoresis				

Initials: Res

Date: 2/2/25

S061 Digestion Control

lot number:

page 1 of 2

INGREDIENTS	initial concentration (ng/μL)	initial volume (μL)	final concentration	final volume (μL)
RM221 K562 DNA			1 ng/μL	
S039 TE, 1X	1 X			000 000 000 000

Calculations

Record the initial concentration in $ng/\mu L$ and the initial volume in μL of the K562 DNA received from the manufacturer.

Calculate the final volume according to equation 1.

(final volume) = (initial DNA concentration)(initial DNA volume) equation 1 (1 $ng/\mu L$)

Record the final volume above. The final volume is the total batch size.

Calculate the amount of 1X TE to be added according to equation 2.

(TE volume) = (final volume) - (initial DNA volume) equation 2

Record the TE volume above.

To check the calculations, add together the initial volumes of DNA and 1X TE.

The sum of the initial volumes must be equal to the calculated final volume.

Procedure

Combine the DNA and 1X TE.

Mix well.

Using sterile pipet tips, dispense 1.0 mL aliquots into sterile 1.5 mL eppendorf tubes.

Store at -20°C.

Initials: RCS

Date: 2/2/9/

S061 Digestion Control

lot number:

page 2 of 2

Data Log	source	lot	amount
RM221 K562 DNA			•
S039 TE, 1X			

Quality Control

QC026 Gel Electrophoresis

Initials: PC	Date:	2/2/21		
S003 DQ α Citrate Buffer		lot number:		
standard batch size: 4 L				
Ingredients	final concentratio	on	amount	
RM001 trisodium citrate	ANT THE SAN MAY		73.6 ± 0.1	g
RM002 citric acid			24 ± 1 g	(guideline)
Procedure				

Dissolve the sodium citrate in approximately 3 liters deionized water.

Adjust the pH to 5.0 by addition of citric acid (approximately 24 g).

Adjust the final volume to 4 liters with deionized water.

Mix well.

Measure and record the final pH.

Dispense into a 4 L bottle.

Store at room temperature.

Data Log	source	lot	amount
RM001 trisodium citrate	water danks with the control of the	-	
RM002 citric acid		_	
Quality Control			
final pH:		specification	5.0 ± 0.2
made by:		date.	

Initials: RO	Date:	2/2/25	
S004 DQ α Hybridization So	lution	lot number: _	
standard batch size: 4 L			
Ingredients	final concentratio	on	amount
S002 SSPE, 20X	5.0 X		1000 ± 10 mL
S001 SDS, 20%	0.50 %		100 ± 1 mL
Procedure			. •
Combine the SSPE and 2.9 L	deionized wate	r in a 4 L flask	
Add the SDS.			
Warm the solution until all soli	ds are dissolve	d.	
Mix well.			
Dispense into 1 L bottles.			
Store at room temperature.			
Data Log	source	lot	amount

S002 SSPE, 20X

S001 SDS, 20%

Quality Control

QC016 DQ α Hybridization

Initials:	RCI

Date: 2/2/85

S005 DQa Wash	Solution
---------------	-----------------

lot number: _____

standard batch size: 4 L

Ingredients	final concentration	amount
S002 SSPE, 20X	2.5 X	500 ± 10 mL
S001 SDS, 20%	0.10 %	20 ± 1 mL

Procedure

Measure 20 mL 20% SDS in a 50 mL graduated cylinder.

Raise the volume of the SDS solution to 50 mL by adding 30 mL deionized water.

Pour the SDS into a 4 L bottle.

Add 500 mL SSPE and 3450 mL deionized water.

Cap and mix well by inverting.

Store at room temperature.

Data Log	source	lot	amount
S002 SSPE, 20X	***************************************		***************************************
S001 SDS, 20%	***************************************		

Quality Control

QC016 DQ α hybridization

made b	y:	date:	
	-		

Initials:	Date: 5/8/8					
S093 DTT, 1M	lot number:					
standard batch size: 5 mL						
Ingredients	final concentration	amount				
RM101 dithiothreitol	1.0 M	0.77 ± 0.05	g			
S059 sterile water						
Procedure						
Add the DTT to approximately 4 mL sterile, deionized water in a 15 mL centrifuge tube.						
Mix well.						
When the DTT is dissolved, bri	ng up to volume with	sterile, deionized wat	er.			
Filter sterilize.						
Dispense 250 μL aliquots into sterile 0.5 mL eppendorf tubes.						
Store at -20° C.						
Data Log	source	lot amou	nt			
RM101 dithiothreitol						
S059 sterile water						
Quality Control						

QC023 QuantiBlot Quality Control of Solutions- Test 20 μL of solution

Initials: RS	Date: ≥/≥/	181	
S093 DTT, 1M	lot nu	mber:	
standard batch size: 20 mL			
Ingredients	final concentration	amount	
RM101 dithiothreitol	1.0 M	3.1 ± 0.2	2 g
S059 sterile water			
Procedure			
Add the DTT to approximately	15 mL sterile, deioniz	ed water in a 50	mL centrifuge tube.
Mix well.			
When the DTT is dissolved, brid	ng up to volume with	sterile, deionize	d water.
Filter sterilize.			
Dispense 250 μL aliquots into s	sterile 0.5 mL eppend	orf tubes.	
Store at -20°C.			
Data Log	source	lot a	amount
RM101 dithiothreitol			

Data Log	source	Ю	amount
RM101 dithiothreitol	***************************************		
S059 sterile water		Saves	

Quality Control

QC023	QuantiBlot	Quality	Control	of	Solutions-	Test	20	μL	of	solution

Initials: RCJ	Date:	2/2/8			
S030 DTT, 0.39M		lot numb	er:		_
standard batch size: 1.5	5 mL				
Ingredients	final concentration	amoun	t		
RM101 dithiothreitol	0.39 M	0.090 ±	0.001 g		
S059 sterile water		1.5	5 mL (Gui	deline)	
Procedure				. •	
Add the DTT to approxi	mately 1 mL sterile v	vater in a st	erile 1.5 r	mL eppendorf to	ube
Mix well.					
When the DTT is dissol	ved, bring up to volu	me with ste	rile water.		
Dispense 500 μL aliquo	ots into sterile 0.5 mL	eppendorf	tubes.		
Store at -20°C.					
Discard after 6 months					
Data Log	sou	ırce	lot	amount	
RM101 dithiothreitol					
S059 sterile water				•	

Quality Control

QC023 QuantiBlot Quality Control of Solutions- Test 40 μ L of solution

Initials:	Date: 1 1 6/96		
S110 EDTA, 200 mM	lot nur	nber:	
standard batch size: 25 mL			
Ingredients	final concentratior	1	amount
S009 EDTA, 0.5 M	200 mM		10.0 ± 0.5 mL
Procedure			
Add the EDTA to 15 mL deionized v	vater.		
Mix thoroughly.			
Filter sterilize or autoclave at 250°F	for 20 minutes.		
Dispense into 300 μL aliquots.			
Store at room temperature.			
Defelor			
Data Log	source	lot	amount
S009 EDTA, 0.5 M	***************************************		

made by: _____ date: ____

Quality Control

QC016 PCR Kit Hybridization- Test 20 µL of solution

Initials: Ref Date: 2/2/85 lot number: **S009 EDTA, 0.5M** standard batch size: 500 mL Ingredients final amount concentration RM003 EDTA 0.50 M $93 \pm 1 g$ RM004 sodium hydroxide, 10N Procedure Add the EDTA to approximately 250 mL deionized water. Adjust the pH to 8.0 with sodium hydroxide solution. Mix well. When the EDTA is dissolved, adjust the pH to 8.0.

Bring up to volume with deionized water.

Check and record the final pH.

Dispense into 125 mL bottles.

Autoclave at 250°F for 20 minutes.

Store at room temperature.

Quality Control

final pH: _____ specification: 8.0 ± 0.1

Initials: PC	Date: 2/2/8	e T
S056 Ethanol, 70%	lot num	ber:
standard batch size: 500 m	L	
Ingredients	final concentration	amount
RM009 ethanol, 100%	70%	350 \pm 10 mL
Procedure		
Measure the ethanol in a gra	aduated cylinder.	
Bring up to volume with deig	nized water.	
Dispense into a storage conf	ainer.	
Store at room temperature o	r at 2-8°C.	

Data Log	Source	101	amount	
RM009 ethanol, 100%		•		
made by:			date:	

Initials: RC

Date: 2/2/8/

S031 Gel Neutralization Buffer

lot number:

standard batch size: 8 L

Ingredients final amount concentration RM073 TRIS 0.20 M 194 ± 4 g RM005 sodium chloride 0.30 M $140 \pm 4 g$ $100 \pm 10 \text{ mL}$ (guideline) RM096 hydrochloric acid

Procedure

Add the TRIS and NaCl to approximately 6 L deionized water in an 8 L carboy.

Adjust the pH to 7.6 using concentrated HCI.

Bring up to the final volume with deionized water.

made by:

Mix well.

Check and record the final pH.

Store at room temperature.

Data Log	source	lot	amount
RM073 TRIS	NAME OF THE PROPERTY OF THE PR	***************************************	
RM005 sodium chloride	***	and the second s	
RM096 hydrochloric acid	AND PROPERTY AND P		Address Andress Andres
final pH:	specificat	tion: 7.6 ± 0.	1

date:

Initials: RC

Date: 2/2/25

S016 Hae III Buffer, 10X

lot number: _____

standard batch size: 100 mL

Ingredients	final concentration	amount
RM073 TRIS	500 m M	6.0 ± 0.2 g
RM046 magnesium chloride, hexahydrate	100 m M	2.0 ± 0.1 g
RM005 sodium chloride	500 m M	2.9 ± 0.1 g
RM096 hydrochloric acid	400 MIC MIC	

Procedure

Add the TRIS, magnesium chloride, and sodium chloride to approximately 75 mL deionized water.

Mix well.

Adjust the pH to 8.0 with hydrochloric acid.

Bring up to the final volume with deionized water.

Dispense into a sterile 125 mL bottle.

Autoclave at 250°F for 20 minutes.

Using sterile pipet tips, dispense 1 mL aliquots into sterile 1.5 mL eppendorf tubes. Store at -20°C.

Data Log	source	lot	amount
RM073 TRIS			***************************************
RM046 magnesium chloride, hexahydrate			
RM005 sodium chloride			
RM096 hydrochloric acid	Annicolation consists consists and an action of the consists o		
Quality Control			

final pH: _____ spec: 8.0 ± 0.1

made by: _____ date: ____

Initials: RC/

Date: 2/2/85

S102 Heparin Solution

lot number:_____

standard batch size: 50 mL

Ingredients	final concentration	amount
S035 SP, 25X	5 X	10 ± 0.5 mL
RM028 Heparin	50 mg/mL	2.5 ± 0.05 g
RM061 Na Azide	0.2%	0.1 ±0.005 g
SO59 Sterile Water		

Procedure

Weigh heparin in a sterile 50 mL tube.

Add the Na Azide, SP and mix.

Add the sterile water to volume on tube.

Mix.

The solution may be heated to help dissolve the heparin.

Filter sterilize.

Dispense into a new sterile 50 mL tube.

Store at 4°C.

Data Log	source	lot	amount
S035 SP, 25X		ACCOMMON AND AND AND AND AND AND AND AND AND AN	4-10-10-10-10-10-10-10-10-10-10-10-10-10-
RM028 Heparin			
RM061 Na Azide			 .
SO59 Sterile Water			
made by:			date:

Initials:

Date: 1 (6(96

S105 HLA-DQα PCR R	eaction Mixture	,	lot number: _	·
standard batch size: ~ {	55 tubes x 50 μL			
Ingredients		fina conce	l entration	amount
HLA-DQα PCR reaction	n mix	Managana	**************************************	3 mL
Autoclaved, PCR reaction	on tubes	and the second s		55 tubes
Procedure				
NOTE: ALIQUOT ALL T AMPLIFIED DNA TO MI GLOVES IS ESSEN	NIMIZE CONTA	MINATION. U	JSING CLEAN	
Clean the bench top thor paper.	oughly using a	10% bleach s	olution, and cov	ver it with new bench
While wearing clean glow designated for the PCR			bag and place	them in a clean rack
Using a dedicated positive carefully aliquot 50 µL of				ydrophobic filters,
Once aliquotting is comp sources of DNA.	lete, cap all tube	es and store in	n a labeled rack	away from all
Store at 2-8°C.				
Data Log	source	lot	amount	
PCR reaction mix				
PCR reaction tubes	MATERIAL REPORT PROPERTY AND AN ARCHITECTURE AND ARCHITEC		-	
Quality Control				
QC015 PCR Kit Amplifica	ition- Only for the	e first kit of ea	ach shipment/lo	t
made by:		date:		

Initials: RS	Date	: 2/20	185	
S105 HLA-DQ $lpha$ PCR Rea	action Mixture	1	lot number:	***************************************
standard batch size: ~ 55	i tubes x 50 μL	-		
Ingredients		final concer	ntration	amount
HLA-DQα PCR reaction r	mix	***************************************	······································	3 mL
HLA-DQα autoclaved, PC	R reaction tub	es	. *	55 tubes
Procedure				
NOTE: ALIQUOT ALL TU AMPLIFIED DNA TO MII GLOVES IS ESSENTI	NIMIZE CONTA	AMINATION.	USING CLEAN	· · · · · · · · · · · · · · · · · · ·
Clean the bench top thorous bench paper.	ughly using a 1	0% bleach s	olution, and cover	it with new
While wearing clean gloves rack designated for the PC			bag and place th	nem in a clean
Using a dedicated positive carefully aliquot 50 μL of F				rophobic filters,
Once aliquotting is complet sources of DNA.	te, cap all tube	s and store in	n a labeled rack a	way from all
Store at 2-8°C.				
Data Log	source	lot	amount	
PCR reaction mix	APRICAL METAL SERVICE	#0400400000000000000000000000000000000	MIS VERSENBERGERGERGERGERGERGERGERGERGERGERGERGERGE	
PCR reaction tubes		***************************************		
Quality Control				
QC015 DQα Amplification				

made by:_____ date:____

Initials	:	124
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Date: 1/2/95

S	02	6	Ну	bric	lizatior	Solution,	RF	LP
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lot number: _____

standard batch size: 1 L

Ingredients	final concentration	amount	
S035 SP, 25X	1.5 X	60 ± 2 mL	
S001 SDS, 20%	7 %	350 ± 10 mL	

Procedure

Add the SP to 590 mL deionized water.

Add the SDS to the solution.

Heat the solution to dissolve the SDS.

Mix well.

Rinse the filter of a disposable filter unit with approximately 500 mL sterile, deionized water.

Filter sterilize the warm hybridization solution.

Dispense into 250 mL aliquots.

Store at room temperature.

Data Log	source	lot	amount
S035 SP, 25X			nativotivotimas venturas and a second ventura and a second ventura and a second ventura and a second ventura a
S001 SDS, 20%			

Quality Control

QC027 Southern Blotting and Hybridization

made by:		date:	
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Initials: RC	Date: 2/2/85	
S079 Hydrogen Peroxide, 3%	lot number:	
standard batch size: 30 X 0.5 mL		
		. •
Ingredients	final concentration	amount
RM176 hydrogen peroxide, 30%	3 %	$1.5~\text{mL}~\pm~0.1~\text{mL}$
deionized water		13.5 mL (guideline)
Procedure		

Add hydrogen peroxide to a 15 mL disposable tube.

Add deionized water to a final volume of 15 mL.

Aliquot approximately 0.5 mL of hydrogen peroxide into 1.5 mL microcentrifuge tubes.

Label each tube with ${\rm "H_2O_2"}$ and the lot number. Label the rack with expiration date.

Store at 4°C in the dark.

Discard after 2 months.

Data Log	source	lot	amount
RM176 hydrogen peroxide, 30%			
made by:		date:	

Initials: QQ

Date: 2/2/80

S032 Lambda Marker

lot number: _____

page 1 of 2

Ingredients	initial concentration (ng/μL)	initial volume (μL)	final concentration	final volume (µL)
RM155 lambda Hind IIIfragments			20 ng/μL	
S021 yield gel loading buffer	5 X		1 X	
S059 sterile water	APT 407 400 400 100			ADD 400 000

Calculations

Record the initial concentration in $ng/\mu L$ and the initial volume in μL of the lambda Hind III DNA received from the manufacturer.

Calculate the final volume according to equation 1.

(final volume) = (initial DNA concentration)(initial DNA volume) equation 1 $(20 \text{ ng/}\mu\text{L})$

Record the final volume above. The final volume is the total batch size.

Calculate the amount of buffer to be added according to equation 2.

(buffer volume) = 0.2(final volume) equation 2

Calculate the amount of sterile water to be added according to equation 3.

(water volume) = [0.8 * (final volume)] - (initial DNA volume) equation 3

Record the buffer and water volumes above.

To check the calculations, add together the initial volumes of DNA, loading buffer, and sterile water.

The sum of the initial volumes must be equal to the calculated final volume.

In	it	ia	ls	:	RU
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Date: 2/2/8/

S032 Lambda Ma	arker	
----------------	-------	--

lot number:

page 2 of 2

Procedure

Combine the DNA, loading buffer, and sterile water.

Mix well.

Using sterile pipet tips, dispense 500 µL aliquots into sterile 1.5 mL eppendorf tubes.

Store at -20°C.

Data Log	source	lot	_, amount
RM155 lambda Hind III fragments	***************************************		
S021 yield gel loading buffer			
S059 sterile water	***************************************	***************************************	-

Quality Control

QC026 Gel Electrophoresis

made by:	date:	

Initials: RG	Date: 2/2	181	
S015 Lithium Chloride, 7.5 M	lot number:		
standard batch size: 100 mL			
 Ingredients	final concentration	ר	amount
RM032 lithium chloride	7.5 M		31.8 ± 0.2 g
Procedure			
Dissolve the lithium chloride in ap	proximately 75 mL	deionized w	/ater.
Mix well.			
When the lithium chloride has disswater.	solved, bring up to	the final vol	ume with deionized
Dispense 10 mL aliquots into 15 r	nL centrifuge tubes		
Autoclave at 250°F for 20 minutes	S .		. •
Store at -20°C.			
Data Log	source	lot	amount
RM032 lithium chloride			-
made by:		date:	

4.1	. /> / .	
·	te: 2/2/85	
S055 Magnesium Chloride, 0.1M	lot number:	
standard batch size: 250 mL		
Ingredients	final concentration	amount
RM046 magnesium chloride, hexahydra	ate 0.10 M	5.1 ± 0.3 g
Procedure		
Dissolve the magnesium chloride in app	proximately 200 mL deid	onized water.
Mix well.		
When the magnesium chloride has disswater.	olved, bring up to the fi	nal volume with deio
Dispense into 125 mL bottles.		
Autoclave at 250°F for 20 minutes.		
Store at room temperature.		
Data Log	source lot	amount
RM046 magnesium chloride, hexahydrate	***************************************	

made by: _____ date: _____

Initials: RU

Date: 2/2/8/

S006 Phenol

lot number:

standard batch size: 500 mL

page 1 of 2

Ingredients	final concentration	amount
RM112 phenol		500 ± 10 g
S052 TRIS, 0.1 M - pH 7.8		400 ± 10 mL
RM036 m-cresol		25 ± 1 mL
RM049 2-mercaptoethanol		1.0 ± 0.1 mL
RM029 4-hydroxyquinoline		$0.50~\pm~0.01~g$

Procedure

Place a 500 g bottle of phenol crystals in a 65°C waterbath to dissolve (about 10-15 minutes).

When dissolved, add 100 mL TRIS solution to the bottle. Invert several times to mix thoroughly.

Return the bottle to the 65°C water bath and allow the temperature to equilibrate another 10-15 minutes.

Pour the solution into a separatory funnel.

When the phases have separated, return the organic phase (the bottom phase) to the bottle. Discard the aqueous phase into an organic waste container.

To the organic phase, add another 100 mL TRIS.

Separate the phases as before, isolating the organic phase (the bottom phase) each time and discarding the aqueous phase into organic waste.

Repeat the 100 mL TRIS wash one more time.

To the final organic phase, add the m-cresol, mercaptoethanol, hydroxyquinoline, and 100 mL TRIS.

Store at 2-8°C.

Initials: Qc/

Date: 2/2/9/

S006	Phenol
------	--------

lot number: _____

page 2 of 2

Initials: 2d Date: 2/2/95

S053 Phenol-Chloroform-	-Isoamyl Alcohol
-------------------------	------------------

lot number: _____

standard batch size: 1 L

Ingredientsfinal concentrationamountS006 phenol50 % $500 \pm 5 \text{ mL}$ S027 chloroform-isoamyl alcohol50 % $500 \pm 5 \text{ mL}$

Procedure

NOTE: Use only glass containers and graduated cylinders.

Take 500 mL of the phenol mixture from the bottom phase and place it in a brown 1 L bottle.

Add 500 mL chloroform-isoamyl alcohol.

Store at 2-8°C in the flammable materials refrigerator.

Data Log	source	lot	amount
S006 phenol	•	•	. •
S027 chloroform-isoamyl alcohol		•	
made hy:	d	ate.	

Initials: 20

Date: 2/2/25

S042 Phi-X Marker

lot number:

page 1 of 2

Ingredients	initial concentration (ng/μL)	initial volume (μL)	final concentration	final volume (μL)
RM156 phi-X-174, Hae III fragments			50 ng/μL	
S018 analytical gel loading buffer	5 X		1 X	
S059 sterile water				

Calculations

Record the initial concentration in $ng/\mu L$ and the initial volume in μL of the phi-X-174 Hae III received from the manufacturer.

Calculate the final volume according to equation 1.

(final volume) = (initial DNA concentration)(initial DNA volume) equation 1 $(50 \text{ ng/}\mu\text{L})$

Record the final volume above. The final volume is the total batch size.

Calculate the amount of buffer to be added according to equation 2.

(buffer volume) = 0.2(final volume) equation 2

Calculate the amount of sterile water to be added according to equation 3.

(water volume) = [0.8 * (final volume)] - (initial DNA volume) equation 3

Record the buffer and water volumes above.

To check the calculations, add together the initial volumes of DNA, loading buffer, and sterile water.

The sum of the initial volumes must be equal to the calculated final volume.

			400	
Initials: RCJ	Date:	2/2/81		
S042 Phi-X Marker		lot number:	•	
			, B	page 2 of 2
Procedure				
Combine the DNA, loading buffer,	and steril	le water.		
Mix well.				
Using sterile pipet tips, dispense 50	00 μL ali	quots into steri	le 1.5 mL e	eppendorf tubes.
Store at -20°C.				
Data Log		source	lot	amount
RM156 phi-X-174 Hae III fragments	s			
S018 analytical gel loading buffer		***************************************	-	

made by: _____ date: ____

January 31, 1995

S059 sterile water

Quality Control

QC026 Gel Electrophoresis

Initials: 20

Date: 2/2/95

S034	Phos	phate	Buffered	Saline	(PBS)
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lot number: _____

standard batch size: 4 L

Ingredients	final concentration	amount
RM005 sodium chloride	137 mM	. 32.0 ± 0.1 g
RM053 potassium chloride	3.0 mM	0.90 ± 0.01 g
RM065 sodium phosphate, dibasic	6.0 m M	3.41 ± 0.03 g
RM056 potassium phosphate, monobasic	1.5 m M	0.82 ± 0.02 g

Procedure

Add all the components to approximately 3 L deionized water.

Mix well.

Adjust the pH to 7.5.

Bring up to the final volume with deionized water.

Measure and record the final pH.

Dispense into 50 mL centrifuge tubes.

Autoclave at 250°F for 20 minutes.

Store at room temperature.

Data Log	source	lot	amount
RM005 sodium chloride		***************************************	
RM053 potassium chloride	Weekler and a series of the se		
RM065 sodium phosphate, dibasic			
RM056 potassium phosphate, monobasic			

Quality Control

final pH: _____ spec: 7.5 ± 0.1

QC023 QuantiBlot Quality Control of Solutions- Test 150 µL of solution

made by: _____ date: ____

Initials: RE	Dat	e: [[16[96	
S109 PM PCR Reaction	n Mixture	lot num	ber:
standard batch size: ~	65 tubes x 40 μL		
Ingredients		final concentration	amount
PM PCR reaction mix			2.4 mL
Autoclaved, PCR reaction	on tubes		55 tubes
Procedure			
AMPLIFIE	D DNA TO MINIM	IIZE CONTAMINATIO	ROOM FREE FROM ON. USING CLEAN OFTEN AS NEEDED.
Clean the bench top tho paper.	roughly using a 1	0% bleach solution, a	and cover it with new bench
While wearing clean glo designated for the PCR			d place them in a clean rack
Using a dedicated positicarefully aliquot 40 µL of			with hydrophobic filters,
Once aliquotting is comp sources of DNA.	olete, cap all tube	s and store in a label	ed rack away from all
Store at 2-8°C.			
Data Log	source	lot amo	unt
PM reaction mix			

QC015 PCR Kit Amplification- Only for the first kit of each shipment/lot

made by:_____ date:____

PCR reaction tubes

Quality Control

Initials:	In	it	ia	al	s	: 29
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Date: 2/2/85

S	0	9	7	P	r	e-	٧	٧	e	t	ti	n	g	S	0	I	u	ti	0	n	ì
---	---	---	---	---	---	----	---	---	---	---	----	---	---	---	---	---	---	----	---	---	---

lot number: _____

standard batch size: 4 L

Ingredients	final concentration	amount
RM004 NaOH, 10 N	0.4 N	160 ± 10 mL
S009 EDTA, 0.5 M	25 m M	200 ± 10 mL

Procedure

Measure 3640 mL deionized water into a 4 L bottle.

Add 160 mL NaOH and 200 mL EDTA.

Cap and mix well by inverting.

Dispense into 1 L bottles or store in bulk.

Store at room temperature.

Data Log	source	lot	amount
RM004 NaOH, 10 N			
S009 EDTA, 0.5 M			
made by:		date:	

Initials:

Date: 1 (6/95

S011 Protein	Lysis	Buffer	(PLB	(
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lot number: _____

standard batch size: 2 L

Ingredients	final concentration	amount
S009 EDTA, 0.5M	10 m M	40 ± 2 mL
RM073 TRIS	10 m M	2.4 ± 0.1 g
RM005 sodium chloride	10 m M	1.2 ± 0.05 g
RM096 hydrochloric acid	****	

Procedure

Add the TRIS, EDTA, and sodium chloride to approximately 1.5 L deionized water. Mix well.

Adjust the pH to 7.9 with hydrochloric acid

Raise to the final volume with deionized water.

Mix well.

Dispense into 15 mL centrifuge tubes.

Autoclave at 250°F for 30 minutes.

Store at 2-8°C.

Data Log	source	lot	amount
S009 EDTA, 0.5M	****		manuski kanta da kan
RM073 TRIS		•	***************************************
RM005 sodium chloride			***************************************
RM096 hydrochloric acid			edition to the second and the second
Quality Control			
final pH:		spec:	7.9 ± 0.1
QC023 QuantiBlot Quality Contro	l of Solutions-	test 150 μL o	of solution

date:

Initials: Ry

Date: 5/9/8/

lot number:

standard batch size: 2 L

Ingredients	final concentration	amount
S009 EDTA, 0.5M	10 m M	40 ± 2 mL
RM073 TRIS	10 m M	$2.4 \pm 0.1 g$
RM005 sodium chloride	10 m M	1.2 ± 0.05 g
RM096 hydrochloric acid		

Procedure

Add the TRIS, EDTA, and sodium chloride to approximately 1.5 L deionized water. Mix well.

Adjust the pH to 7.4 with hydrochloric acid

Raise to the final volume with deionized water.

Mix well.

Dispense into 15 mL centrifuge tubes.

Autoclave at 250° F for 30 minutes.

Store at 2-8° C.

Data Log	source	lot	amount
S009 EDTA, 0.5M			
RM073 TRIS			
RM005 sodium chloride	-		***************************************
RM096 hydrochloric acid		E PARTICIPANO POR PORTUGUIS DE CONTRACTO DE CONTRACTO DE CONTRACTO DE CONTRACTO DE CONTRACTO DE CONTRACTO DE C	
Quality Control			

final	pH:	spec:	$7.9 \pm$	0.1

QC023 QuantiBlot Quality Control of Solutions- test 150 µL of solution

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noinean

Date: 2/2/85 Initials:

S011 Protein Lysis Buffer (PLB) lot number:

standard batch size: 2 L

Ingredients	final concentration	amount
S009 EDTA, 0.5M	10 m M	40 ± 2 mL
RM073 TRIS	10 m M	2.4 ± 0.1 g
RM005 sodium chloride	10 mM	$1.2 \pm 0.05 g$
RM096 hydrochloric acid	***	

Procedure

Add the TRIS, EDTA, and sodium chloride to approximately 1.5 L deionized water.

Adjust the pH to 7.4 with hydrochloric acid

Raise to the final volume with deionized water.

Mix well.

Dispense into 500 mL bottles.

Autoclave at 250°F for 30 minutes.

Store at 2-8°C.

Data Log	source	lot	amount
S009 EDTA, 0.5M		**************************************	**************************************
RM073 TRIS			4
RM005 sodium chloride	-	***************************************	
RM096 hydrochloric acid	Könndale Australista kilon kilon kan kan kan kan kan kan kan kan kan ka	contractivistic describition of the contraction of	
Quality Control			

spec:	7.4 ±	0.1
	spec:	spec: 7.4 ±

QC023 QuantiBlot Quality Control of Solutions- test 150 µL of solution

made	by:		date:	
------	-----	--	-------	--

Initials: AC	Date: 2/2/8	Januaria.	
S014 Proteinase-K Enzyme, 10mg/			er:
standard batch size: 10 mL			
Ingredients	final concentration		amount
RM119 proteinase-K, lyophilized	10 mg/mL		100 ± 1 mg
S059 sterile water			10 ± 0.5 mL
Procedure Add 10 mL sterile, deionized water to enzyme.		ng) lyop	hilized proteinase-K
Mix by slowly inverting until complete			
Dispense 500 μL aliquots into 1.5 mL	_ eppendort ubes.		
Store at -20°C.			
Data Log	source	lot	amount
RM119 proteinase-K, lyophilized			
S059 sterile water			

Quality Control

QC023 QuantiBlot Quality Control of Solutions- Test 10 μL of solution

QC024 Non-Organic Extraction

made by: _____ date: _____

Initials: RCJ	Date: 2/2/25	
S037 Proteinase-K Enzyme, 20m	ng/mL lot nur	nber:
standard batch size: 5 mL		
Ingredients	final concentration	amount
RM119 proteinase-k, lyophilized	20 mg/mL	100.0 \pm 0.5 mg
S059 sterile water	<u> </u>	5 mL
Procedure Add 5 mL sterile water to one bottl Mix by slowly inverting until complet Dispense 500 ul aliquots into 1.5 m Store at -20°C.	etely reconstituted.	oteinase-k enzyme.
Data Log RM119 proteinase-k, lyophilized S059 sterile water Quality Control QC023 QuantiBlot Quality Control QC024 Non-Organic Extraction	source loto	

made by: _____ date: ____

Initials: Ref Date: 2/2/80

S100 QuantiBlot DNA Standards

lot number:

standard batch size: variable

page 1 of 2

Ingredients	final concentration	amount
RM442 DNA Standard A	varies	varies
S039 TE, 1X	1X	varies

Procedure

Each lot of QuantiBlot DNA Standards is prepared by pooling up to 10 DNA Standard A's (from the QuantiBlot kit) and serially diluting according to the following procedure:

- 1. Pool the contents of five or ten DNA Standard A tubes (use all one lot number).
- 2. Vortex to mix thoroughly.
- 3. Label seven sterile microfuge tubes, 1A 1G.
- 4. If five DNA Standard A tubes were pooled:

Transfer 600 μ L of DNA Standard A into the tube labeled 1A. This is now DNA Standard 1A.

Aliquot 300 µL of 1X TE into each of the six remaining tubes labeled 1B-1G.

Add 300 μ L of DNA Standard 1A to the 300 μ L of 1X TE in tube 1B. Vortex to mix thoroughly.

Add 300 μ L of diluted DNA Standard (tube 1B) to the 300 μ L of 1X TE in tube 1C. Vortex to mix thoroughly.

Add 300 μL of diluted DNA Standard (tube 1C) to the 300 μL of 1X TE in tube 1D. Vortex to mix thoroughly.

Continue the serial dilution through tube 1G.

5. If ten DNA Standard A tubes were pooled:

Transfer 1200 μ L of DNA Standard A into the tube labeled 1A. This is now DNA Standard 1A.

Aliquot 600 µL of 1X TE into each of the six remaining tubes labeled 1B-1G.

Add 600 μL of DNA Standard 1A to the 600 μL of 1X TE in tube 1B. Vortex to mix thoroughly.

Initials: KG

Date: 2/2(E/

\$100 QuantiBlot DNA Standards

lot	number:	
	HUIHIDOI.	

standard batch size: variable

page 2 of 2

Add 600 μL of diluted DNA Standard (tube 1B) to the 600 μL of 1X TE in tube 1C. Vortex to mix thoroughly.

Add 600 μ L of diluted DNA Standard (tube 1C) to the 600 μ L of 1X TE in tube 1D. Vortex to mix thoroughly.

Continue the serial dilution through tube 1G.

- 6. Store at 2° to 8°C.
- 7. DNA Standards are stable for at least 3 months as 2° to 8°C.

If the dilution steps are performed as described above, the seven DNA Standard tubes will have the following concentrations of human DNA:

DNA Standards				
Standard Tube	Conc (ng/μL)	Quantity (ng/5μL)		
1A	2	10		
1B	1	5		
1C	0.5	2.5		
1D	0.25	1.25		
1E	0.125	0.625		
1F	0.0625	0.3125		
1G	0.03125	0.15625		

Data Log	source	lot	amount
RM442 DNA Standard A		inversida Niversida en antica en alciculos sobre de annota sin base de acuargo.	APPARATURE AND APPARA
S039 TE, 1X	MARKATIAN ALEMANIAN ALEMAN		
Quality Control			
QC018 QuantiBlot Hybridization.			
made by:		date:	

Initials: Res

Date: 2/2/8/

S	0	99	Quan	tiBlo	ot W	/ash	Sol	ution
---	---	----	------	-------	------	------	-----	-------

lot number: _____

standard batch size: 4 x 4 L

Ingredients	final concentration	amount/ 4 Lite	
S002 SSPE, 20X	1.5 X	300 ± 10 mL	
S001 SDS, 20%	0.5 %	100 ± 5 mL	

Procedure

Measure 3600 mL deionized water into four 4 L bottles.

Add 300 mL SSPE and 100 mL SDS to each bottle.

Cap and mix well by inverting.

Store at room temperature.

Data Log	source	lot	amount
S002 SSPE, 20X		***************************************	
S001 SDS, 20%			
made by:			date:

Date: 2/2/25 Initials: RCS S054 Sarkosyl, 10% lot number: _____ standard batch size: 100 mL Ingredients final amount concentration S040 sarkosyl, 20% 10. % $50 \pm 2 mL$ **Procedure** Dilute 50 mL of 20% sarkosyl with 50 mL deionized water. Mix well. Filter sterilize. Dispense into sterile 15 mL tubes. Store at 2-8°C.

Data Log source lot amount

S040 sarkosyl, 20% _____ date: ____

Initials: Ac)	Date:	2/2/85
S040 Sarkosyl, 20%		lot number:
standard batch size:	100 mL	
Ingredients	final concentration	amount
RM057 sarkosyl	20 %	$20~\pm~0.5~g$
Procedure		
Add the sarkosyl to ap	pproximately 75 mL de	ionized water.
Mix until the solution is	s completely clear.	
Bring up to volume wit	th deionized water.	
Filter sterilize.		
Dispense into sterile 1	5 ml tubos	

Store at 2-8°C.

RM057 sarkosyl

Data Log

source lot amount

made by: _____ date: ____

Initials: RCJ

Date: 2/2/85

S101 SDS, 0.1%

lot number: _____

standard batch size: 20 L

Ingredients

final concentration

amount

S001 SDS, 20%

0.1 %

 $100 \pm 10 \text{ mL}$

Procedure

Add approximately 15 L of deionized water into a 20 L carboy.

Add 100 mL 20% SDS.

Mix .

Bring up to a final volume of 20 L with deionized water.

Mix.

Store at room temperature.

Data Log

source

lot

amount

S001 SDS, 20%

made by: _____

date:

Initials: Res Date: 2/2/95 S045 SDS, 10% lot number: _____ standard batch size: 100 mL amount Ingredients final concentration RM007 sodium dodecyl sulfate 10 % $10.0 \pm 0.3 g$ **Procedure** CAUTION: AN AEROSOL MASK OR FUME HOOD MUST BE USED WHEN MAKING THIS SOLUTION.. WEAR GOGGLES FOR EYE PROTECTION. Dissolve the SDS in approximately 75 mL deionized water. Warm the solution until all the solids have dissolved and the solution is clear. Bring up to volume with deionized water. Filter sterilize the warm solution. Dispense into sterile 100 mL bottles. Store at room temperature. Data Log source lot amount

Initials: CC	Date: 2	12/25
S001 SDS, 20%	lo	ot number:
standard batch size: 1 L		
Ingredients	final concentration	amount
RM007 sodium dodecyl sulfate	20 %	200 ± 5 g
Procedure		•
CAUTION: AN AEROSOL MAS THIS SOLUTION. WEAR GOG		OOD MUST BE USED WHEN MAKING PROTECTION.
Warm approximately 750 mL dei	ionized water or	n a stirring hot plate.
Add a fraction of the SDS, allow	ing the solids to	dissolve before adding more.
Add the SDS until it is all in solu	tion.	
When the solution is clear, bring	up to volume w	rith deionized water.
Filter sterilize the warm solution.		
Dispense into sterile 500 mL bot	tles.	

Store at room temperature.

RM007 SDS

Data Log source lot amount

made by: _____ date: _____

Initials:	RY	Date:	2/2/87		
S046 SLS, 20%			lot number: _		
standard batch s	size: 4 L				
Ingredients		final concentrati	on	amount	
RM218 sodium la	auryl sulfate	20 %		800 ± 5 g	
Procedure					
CAUTION: AN A				BE USED WHEN MAKING ON.	3
Warm approxima	ately 2.5 L deion	nized water o	n a stirring hot	plate.	
Add a fraction of	the SLS, allowi	ng the solids	to dissolve bef	ore adding more.	
Add SLS until it is	s all in solution.				
Mix well.					
When the solution	n is clear, bring	up to volum	e with deionized	d water.	
Sterile filter each	2 L with a steri	le unexpired	cellulose nitrate	e filter.	
Dispense into 1 L	bottles.				
Store at room ten	nperature.				
Data Log		source	lot	amount	
RM218 sodium la	uryl sulfate			. •	

made by: _____ date: ____

S043 Sodium Acetate, 2 M		lot number:	
standard batch size: 100 ml	L	-	
Ingredients		final concentration	amount
RM059 sodium acetate, anhy	ydrous	2.0 M	16.4 ± 0.4 g
Procedure			
Slowly add the sodium aceta	te to approxima	tely 50 mL deion	ized water.
Mix well.			
Bring up to volume with deion	nized water.		
Mix well.			
Dispense into 100 mL bottles	3.		
Autoclave at 250°F for 30 mi	nutes.		. •
Dispense into 15 mL tubes.			
Store at room temperature.			
Data Log	source	lot a	amount
RM059 sodium acetate, anhydrous			
Quality Control			
QC023 QuantiBlot Quality Co	ontrol of Solution	ns- Test 20 µL of	solution

Date: 2/2/81 Initials: RG S044 Sodium Acetate, 0.2M lot number: _____ standard batch size: 250 mL Ingredients final concentration amount RM059 sodium acetate, anhydrous 0.2 M $4.1 \pm 0.1 g$ **Procedure** Slowly add the sodium acetate to approximately 200 mL deionized water. Mix well. Bring up to volume with deionized water. Mix well. Dispense into 100 mL bottles. Autoclave at 250°F for 30 minutes. Store at room temperature.

Data Log	source	lot	amount
RM059 sodium acetate, anhydrous			Mikk-versichingsvan sensia ansatzara gerapanian me

Quality Control

QC023 QuantiBlot Quality Control of Solutions- Test 150 µL of solution

made by: _____ date: ____

Initials: AG

Date: 2/2/2/

S035 SP, 25X

lot number: _____

standard batch size: 4 L

Ingredients final amount concentration

RM003 EDTA 25 mM $37.2 \pm 0.8 g$

RM004 sodium hydroxide, 10N 100 mL (guideline)

RM005 sodium chloride 3.75 M $877 \pm 1 g$

RM006 sodium phosphate, monobasic 0.25 M $138 \pm 3 g$

Procedure

Dissolve the EDTA in approximately 2 liters deionized water.

Adjust the pH to approximately 8.0 with 10N NaOH to help dissolve the EDTA.

Add the sodium phosphate. Mix until dissolved.

Add the sodium chloride.

Adjust the pH to 7.4 ± 0.2 with 10N NaOH (about 80 mL).

Adjust the final volume to 4 liters with deionized water.

Measure and record the final pH.

Sterile filter each 2 liters with a sterile unexpired cellulose nitrate filter.

Store at room temperature.

Data Log	source	lot	amount
RM003 EDTA	No. 100 August 100 Aug	***************************************	
RM004 sodium hydroxide, 10N		***************************************	COLOR
RM005 sodium chloride			
RM006 sodium phosphate, monobasic			1980 H H H H H H H H H H H H H H H H H H H
Quality Control			
final pH:		specification	$7.4~\pm~0.2$
made by:		date:	

Initials: Red Date

Date: 2/2/85

lot number: _____

standard batch size: 1 L

S108 SP, 2X

Ingredients final amount

concentration

S035 SP, 25X 2.0 X 80.0 ± 0.8 mL

Procedure

Add the SP to approximately 800 mL deionized water.

Bring up to the final volume with deionized water.

Dispense into a 500 mL bottles.

Autoclave at 250°F for 20 minutes.

Store at room temperature.

Data Log source lot amount

S035 SP, 25X

Initials: RS

Date: 2/2/95

S098 Spotting Solution

lot number: _____

date:

standard batch size: 75 mL

Ingredients final amount concentration S097 Pre-Wetting Solution $74.85 \text{ mL} \pm 1 \text{ mL}$ $150~\mu L \pm 1~\mu L$ RM443 Bromothymol 0.00008%

Procedure

Blue, 0.04%

Measure 74.85 mL Pre-Wetting Solution into a graduated cylinder and pour into a 100 mL bottle.

Add 150 µL bromothymol blue.

Cap and mix well by inverting.

made by: _____

Data Log	source	lot	amount
S097 Pre-Wetting Solution			•
RM443 Bromothymol Blue, 0.04%	***************************************		***************************************

Initials:

RG

Date: 2/2/95

S002 SSPE, 20X

lot number:

standard batch size: 4 L

Ingredientsfinal concentrationamountRM003 EDTA20. mM $29.8 \pm 0.7 \text{ g}$ RM004 sodium hydroxide, 10N----- $40 \pm 5 \text{ mL}$ (guideline)RM005 sodium chloride3.6 M $840 \pm 10 \text{ g}$ RM006 sodium phosphate, monobasic200 mM $110 \pm 3 \text{ g}$

Procedure

Dissolve the EDTA in approximately 3 liters deionized water.

Adjust the pH to approximately 6.0 with 10N sodium hydroxide to help dissolve the EDTA.

Add the sodium phosphate first and then the sodium chloride.

Adjust the pH to 7.4 with 10N sodium hydroxide (about 40 mL).

Adjust the final volume to 4 liters with deionized water.

Measure and record the final pH.

Dispense into 1 L bottles.

Data Log	source	lo	t	amount
RM003 EDTA			***************************************	- Andrew Company of the Company of t
RM004 sodium hydroxide, 10N		***************************************		5 ************************************
RM005 sodium chloride		майлейтой-байлей аказаканыштарганыдага	METHOLOGISTA MACAMANA	
RM006 sodium phosphate, monobasic			M	WOOTHING THE STREET OF THE STR
Quality Control				
final pH:	Photos Christophic Was web in motivate and a	specificat	ion 7.4	± 0.2
made by:	-	date:		

Initials: RCJ

Date: 2/2/2/

S047	Stain	Extraction	Ruffer
3041	Jiani	LAHACHOI	LDUITEL

lot number:

standard batch size: 1 L

Ingredients	final concentration	amount
S009 EDTA, 0.5M	10. m M	20 ± 1 mL
S052 TRIS-HCI, 0.1M - pH 7.8	10. m M	100 ± 0.5 mL
RM005 sodium chloride	100 m M	5.8 ± 0.2 g
RM101 dithiothreitol	33.9 m M	5.227 ± 0.008 g
S046 SDS, 20%	2.0 %	100 ± 3 mL
RM004 sodium hydroxide, 10N	MA 340 MA 340 MA	Mar liter das valo spo

Procedure

Add all the ingredients <u>except</u> for the SDS to approximately 400 mL deionized water. Mix well.

Adjust the pH to 8.0 with 10N NaOH.

Record the pH.

Add the SDS. Mix well.

Bring up to the final volume with deionized water.

Dispense into sterile 125 mL bottles.

Store at 2-8°C.

Data Log	source	lot	amount
S009 EDTA, 0.5M		***************************************	William Control of the Control of th
S052 TRIS-HCI, 0.1M - pH 8.0	w	***************************************	
RM005 sodium chloride			
RM101 dithiothreitol	****		-
S046 SDS, 20%		***************************************	
RM004 sodium hydroxide, 10N			
Quality Control			
final pH:		specification	8.0 ± 0.2
QC023 QuantiBlot Quality Contr	ol of Solutions	s- Test 150 μ	L of solution
made by:	derecent control of the same said special section of the said special section of the said section of the s	date:	

Initials: 20	Date:	2/2/95
S059 Sterile Water	lot ı	number:
standard batch size:	500 mL	
Procedure		
Filter sterilize 500 ml	of deionized water.	
Aliquot 10 mL each i	nto 15 mL centrifuge to	ubes.
Autoclave at 250°F f	or 30 minutes.	
Store at room tempe	rature.	

Quality Control

QC023 QuantiBlot Quality Control of Solutions- Test 150 μL of solution

made l	by:	date:	
	•		

Initials: Res

Date: 2/2/95

S023 Stripping Solution

lot number: _____

standard batch size: 2 L

Ingredients	final concentration	amount
RM102 formamide	55 %	1100 ± 10 mL
S035 SP, 25X	2.0 X	160 ± 4 mL
S046 SLS, 20%	1.0 %	100 + 6 mL

NOTE: S001 SDS, 20% can be substituted for 20% SLS in this solution.

Procedure

Add the SP and formamide to 1280 mL deionized water.

Mix well.

Add the SDS and mix gently.

Dispense into a 4 L brown bottle.

Store at 2-8°C.

Data Log	source	lot	amount
RM102 formamide	***************************************		
S035 SP, 25X	***************************************	***************************************	· ·
S046 SLS, 20%		Microsophia and a second and a	
made by:			date:

Initials: (20)	Date.		185	
S039 TE, 1X		lot r	number:	. 6
standard batch size: 500 mL				
Ingredients		nal centrati	ion	amour
S049 TE, 100X	1	.0 X		5.0 ± 0.3 n
Procedure				
Add the TE to approximately	400 mL deioni	zed wa	ter.	
Bring up to the final volume w	vith deionized v	vater.		
Dispense into 125 mL bottles.				
Autoclave at 250°F for 20 mir	nutes.			
Store at room temperature.				
Data Log	sou	rce	lot	amount
S049 TE, 100X	***************************************		***************************************	-
Quality Control				
final pH:				

QC023 QuantiBlot Quality Control of Solutions- Test 150 μL of solution

Initials: RS

Date: 2/2/25

S049	TE,	100X
-------------	-----	------

lot number:

standard batch size: 250 mL

Ingredients

final

amount

concentration

RM003 EDTA

0.10 M

 $9.3 \pm 0.5 \, g$

RM073 TRIS

1.00 M

 $30.3 \pm 0.1 g$

RM004 sodium hydroxide, 10N

RM096 hydrochloric acid

Procedure

Add the EDTA to approximately 200 mL deionized water.

Adjust the pH to approximately 8.0 with sodium hydroxide to get the EDTA into solution. Mix until totally dissolved.

Add the TRIS and mix well.

Use hydrochloric acid or sodium hydroxide to adjust the pH of the solution to 8.0.

Bring up to final volume with deionized water.

Measure and record the final pH.

Dispense into 125 mL bottles.

Autoclave at 250°F for 30 minutes.

Data Log	source	lot	amount
RM003 EDTA		***************************************	
RM073 TRIS	***************************************		
RM004 sodium hydroxide, 10N		-	
RM096 hydrochloric acid			
Quality Control			
final pH:		specification:	$8.0~\pm~0.2$
made by:		date:	

Initials: RCJ

Date: 2/2/25

S050 Test Gel Loading Buffer

lot number: _____

standard batch size: 100 mL

Ingredients	final concentration	amount
RM020 bromophenol blue	0.10%	$0.10 \pm 0.01 g$
RM217 xylene cyanol	0.10%	$0.10 \pm 0.01 g$
RM040 FicoII 400	5.0%	5.0 ± 0.1 g
S009 EDTA, 0.5M	20. m M	$2.00 \pm 0.05 \text{ mL}$
RM083 TAE, 10X	2.0 X	$20.0~\pm~0.5~mL$

Procedure

Combine the TAE, EDTA, and Ficoll.

Mix well. The solution may need to be heated gently to dissolve the Ficoll.

Add the bromophenol blue and xylene cyanol.

Mix well.

When all the solids are dissolved, bring up to volume using deionized water.

Filter sterilize.

Dispense 1.5 mL aliquots into 1.5 mL eppendorf tubes.

Store at -20°C.

Data Log	source	lot	amount
RM020 bromophenol blue	400 to Amelika Alika	2004000 birlindi da eki Mikalika (a disabah kelebukaan da eku pekungan birlin menenjan	APPROXIMATION OF THE PROPERTY
RM217 xylene cyanol			
RM040 FicoII 400	***************************************		
S009 EDTA, 0.5M	Million March Control of Control		
RM083 TAE, 10X		and the second and th	

Initials: RCS

Date: 2/2/85

S062 Test Gel Standard

lot number:

page 1 of 2

INGREDIENTS	initial concentration (ng/μL)	initial volume (μL)	final concentration	final volume (μL)
RM242 K562 DNA, Hae III fragments			5 ng/μL	
S050 test gel loading buffer	2 X		1 X	
S059 sterile water	Note that years need to			***

Calculations

Record the initial concentration in $ng/\mu L$ and the initial volume in μL of the K562 DNA, Hae III fragments received from the manufacturer.

Calculate the final volume according to equation 1.

(final volume) = (initial DNA concentration)(initial DNA volume) equation 1 $(5 \text{ ng/}\mu\text{L})$

Record the final volume above. The final volume is the total batch size.

Calculate the amount of buffer to be added according to equation 2.

(buffer volume) = 0.5(final volume) equation 2

Calculate the amount of sterile water to be added according to equation 3.

(water volume) = [0.5 * (final volume)] - (initial DNA volume) equation 3

Record the buffer and water volumes above.

To check the calculations, add together the initial volumes of DNA, loading buffer, and sterile water.

The sum of the initial volumes must be equal to the calculated final volume.

Initials: Res

Date: 2/2/95

S062 Test Gel Standard

lot number:

page 2 of 2

Procedure

Combine the DNA, loading buffer, and sterile water.

Mix well.

Using sterile pipet tips, dispense 500 µL aliquots into sterile 1.5 mL eppendorf tubes.

Store at -20°C.

Data Log	source	lot	amount
RM242 K562 DNA, Hae III fragments			
S050 test gel loading buffer			
S059 sterile water	-		

Quality Control

QC026 Gel Electrophoresis

Initials: Red

Date: 2/2/80

S051 TNE, 10X

lot number:

standard batch size: 100 mL

Ingredients	final concentration	amount
RM073 TRIS	100 m M	1.2 ± 0.02 g
S009 EDTA, 0.5M	10 m M	2.0 ± 0.1 mL
RM005 sodium chloride	1.0 M	5.8 ± 0.2 g
RM096 hydrochloric acid		. •

Procedure

Add the TRIS, EDTA, and sodium chloride to approximately 75 mL deionized water.

Mix well.

Adjust the pH to 7.4 with hydrochloric acid

Bring up to the final volume with deionized water.

Measure and record the final pH. Adjust with concentrated HCI if necessary.

Filter to remove any particulates.

Dispense into a sterile 125 mL bottle.

Data Log	source	lot	amount
RM073 TRIS			
S009 EDTA, 0.5M			
RM005 sodium chloride	***************************************		
RM096 hydrochloric acid			
Quality Control			
final pH:		specification:	$7.4 ~\pm~ 0.1$
made by:		date:	

Initials: Red Date: 2/2/80 lot number: **S107 TNE, 1X** standard batch size: 100 mL Ingredients final amount concentration S051 TNE, 10X 1.0 X $10.0~\pm~0.3~mL$ **Procedure** Add the TNE to approximately 80 mL deionized water. Bring up to the final volume with deionized water. Dispense into a 125 mL bottles. Autoclave at 250°F for 20 minutes. Store at room temperature.

Quality Control

QC023 QuantiBlot Quality Control of Solutions- Test 150 µL of solution

Initials: 20	Date: 2	1/2/20		
S052 TRIS, 0.1M - pH 7.8		lot number: _		
standard batch size: 1 L				
Ingredients	final concentration		amount	
RM073 TRIS	0.1 M	12	2.1 ± 0.2 g	
RM096 hydrochloric acid				
Procedure				
Add the TRIS to approximately 7	750 mL deioniz	ed water.		
Mix well.				
Adjust the pH to 7.8 with hydroc	hloric acid.			
Bring up to the final volume with	deionized wat	er.		
Mix well.				
Dispense into a 1 L bottles.			. •	
Store at room temperature.				
Data Log	source	e lot	amount	
RM073 TRIS				

Data Log	Source	Ю	amount
RM073 TRIS		Washington	
RM096 hydrochloric acid			
Quality Control			
final pH:		_ spec: 7.8 ± 0).1
made by:	·	date:	

Initials: 20

Date: 2/2/2/

S024 Wash Solution #1

lot number: _____

standard batch size: 4 L

Ingredients

final concentration

amount

S035 SP, 25X

2.0 X

 $320 \pm 8 \text{ mL}$

S046 SLS, 20%

0.50 %

 $100 \pm 1 \, mL$

NOTE: S001 SDS, 20% can be substituted for 20% SLS in this solution.

Procedure

Add the SP to approximately 3 L deionized water.

Add the SLS to the solution.

Mix gently.

Bring up to the final volume with deionized water.

Dispense into a 4 L bottle.

Store at room temperature.

Data Log

source

lot

amount

S035 SP, 25X

S046 SLS, 20%

Initials: RCI

Date: 2/2/8/

S025 Wash Solution #2

lot number: _____

standard batch size: 4 L

Ingredients final amount concentration

S035 SP, 25X 0.10 X 16.0 ± 0.8 mL

S046 SLS, 20% 0.50 % $100 \pm 1 \text{ mL}$

NOTE: S001 SDS, 20% can be substituted for 20% SLS in this solution.

Procedure

Add the SP to approximately 3 L deionized water.

Add the SLS to the solution.

Mix gently.

Bring up to the final volume with deionized water.

Dispense into a 4 L bottle.

Store at room temperature.

Data Log source lot amount

S035 SP, 25X _____ ____

S046 SLS, 20% ______ __________

Initials: RC

Date: 2/2/95

S020 Yield Calibrators

lot number:

standard batch size: 5 X 400 µL each

page 1 of 2

Ingredients final amount

concentration

S039 TE, 1X 1 X

RM148 lambda DNA $140 \pm 10 \mu g$ (guideline) ____

S021 yield gel loading buffer 1.25 X $3.0 \pm 0.5 \text{ mL}$

S059 Sterile Water

Calculations

Stock Solution

Final DNA	Final Volume	Initial DNA	Volume	Volume 1X
Concentration		Concentration	Lambda DNA	TE
50 ng/μL	2800 μL			

Calibrators

Calibrator	Final DNA Concentration	Stock DNA Concentration	Volume Stock DNA	Volume Water	Volume Buffer
Α	300 ng/10 μL	50 ng/μL	1200 μL	300 μL	500 μL
В	200 ng/10 μL	50 ng/μL	800 μL	700 μL	500 μL
С	100 ng/10 μL	50 ng/μL	400 μL	1100 μL	500 μL
D	50 ng/10 μL	50 ng/μL	200 μL	1300 μL	500 μL
E	25 ng/10 μL	50 ng/μL	100 μL	1400 μL	500 μL
F	10 ng/10 μL	50 ng/μL	40 μL	1460 μL	500 μL

Procedure

Each lot of yield calibrators is prepared as a batch of five sets. Each batch requires 2800 μ L of 50 ng/ μ L stock lambda DNA solution.

Record the concentration in $ng/\mu L$ of the lambda DNA received from the manufacturer under initial DNA concentration.

Initials: RU

Date: 2/2/2/

\$020 Yield Calibrators

lot number: _____

page 2 of 2

Procedure

Calculate the volume of lambda DNA required for the stock solution according to equation 1.

(volume lambda DNA) = (final DNA concentration)(final volume) equation 1 (initial DNA concentration)

Calculate the volume of 1X TE to add to the stock solution according to equation 2.

(volume 1X TE) = (final volume) - (volume lambda DNA) equation 2

Prepare the stock solution by diluting the lambda DNA in a sterile centrifuge tube with 1X TE and mix well.

Label six sterile eppendorf tubes, one for each of the six yield calibrator levels.

Pipet the appropriate amounts of DNA stock solution and sterile water into the labeled tubes. The combined volume of DNA and water is 1500 µL for each level.

Mix well.

Divide each level into five 300 μ L aliquots, and dispense into labeled, sterile eppendorf tubes.

Add 100 μL of yield gel loading buffer to each tube. The final volume of each aliquot is 400 μL .

Store at -20°C.

Data Log source lot amount

S039 TE, 1X

RM148 lambda DNA

S021 yield gel loading buffer

S059 sterile water

Quality Control

QC026 Gel Electrophoresis

Initials: Rcl Date: 2/2/27

S021 Yield Gel Loading Buffer

lot number: _____

standard batch size: 100 mL

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Ingredients	final concentration	amount
RM020 bromophenol blue	0.25%	0.25 ± 0.01 g
RM217 xylene cyanol	0.25%	$0.25~\pm~0.01~g$
RM040 Ficoll 400	12.5%	12.5 ± 0.1 g
S009 EDTA, 0.5M	50. mM	$10.0 \pm 0.1 \text{ mL}$
RM083 TAE, 10X	5.0 X	50.0 \pm 0.5 mL
S001 SDS, 20%	0.20 %	1.00 ± 0.02 mL

Procedure

Combine the TAE, EDTA, SDS, and Ficoll.

Mix well. The solution may need to be heated gently to dissolve the Ficoll.

Add the bromophenol blue and xylene cyanol.

Mix well.

When all the solids are dissolved, bring up to volume using deionized water.

Filter sterilize.

Dispense 1.5 mL aliquots into sterile 1.5 mL eppendorf tubes.

Store at -20°C.

Initials: Ad	Date: 2/2/27		
S021 Yield Gel Loading Buffer	lot nu	······································	
standard batch size: 100 mL			Page 2 of 2
Data Log	source	lot	amount
RM020 bromophenol blue			
RM217 xylene cyanol		***************************************	
RM040 Ficoll 400			
S009 EDTA, 0.5M			
RM083 TAE, 10X		•	
S001 20% SDS			*********
made hv		date.	