

€•, (PLEC)f„ ...† ‡  
 (^ %Š< Lumi nexCE• Ž••' )  
 ' " " • \_ \_ ~  
 ™" Š > œ

• ž Ÿ | €™" £ ¤ ¥ ¦ §¨ ©!

a « ¬

[ - ® ¯ " ]

° ...† ‡ ± " ² ³ Ÿ••' ´ μ„ ´ ¶ ~ · ¸ ¹ º ¹ » ¼½° ¹ ¾¿ ÀÁÂ ¹ ¾¿ ÃÄÅ, ÆÇÈÉÊ" • Æ  
 ŸË PLECI μÍ

[ ...† ‡ Î Ï ]

...† ‡ Ñ	Òμ	...† ‡ Ñ	Òμ
96ÓÔÕÖ, ×Ø	1	96ÓÔÙÚ	4
ÛÜÝ	2	ÛÜÝ ÞßÀ	1à 20mL
^ á	1	â ã ä å Æ	1à 20mL
f„ æË	1à 120çL	f„ ÞßË	1à 12mL
f„ æË ÌŒPE-SAØ	1à 120çL	f„ ÞßË	1à 12mL
è Æ	1à 10mL	é ê ë Æ Ñ30à Ø	1à 20mL
™" Š > œ	1		

[ Ì Í Î Ï Ñ Ò...† ]

1<sup>1</sup> Lumi nex MAGPIXò€ Lumi nex 100ó€ Lumi nex

200ó€ ÆBio-Radò, Bio-Pl exòã ã ö Ö ö ö ÷ ™" øùø- ú, ûüýí fpyÜØ

2<sup>1</sup> Æ Æ Šμ Æ ÷ ñ

3<sup>1</sup> Þß Ýí EP .

4<sup>1</sup> Æ Ž

5<sup>1</sup> ^

6<sup>1</sup> è Æ Ì Ï ÷

7<sup>1</sup> 0.01mol /L Æ Ì à Ø ä å (PBS) £ pH=7.0-7.2

8<sup>1</sup> ÷

9<sup>1</sup> Û Ö ÷

[ ...† ‡ Ì Ñ ® ]

1<sup>1</sup> i ...t ‡ - ...t! " ...t# Ū\$Å %& Í ' ( ) £\* +...t ‡, ' - . / ŪÜÝ<sup>1</sup> f„ æÃA  
1<sup>1</sup> f„ æÃBOñ%ÓÔ& ¥-201C£Ç2...t' 3¥41C& î " Í  
2<sup>1</sup> ™" , i ...t ‡ - 42...t 5i " 6...t# Ū\$ %i 78& Í  
( ) -  
...t ‡Í Ū9: ; <£" =>ì ? : â @™" A™" , i 42...t ‡ ööBC@=> , 1DEÍ ™" FGÍ H  
ÝI ®J KO‡ŽĀİ Ū\$LŪ£&M®Î » âNO&PQ´ıÍ

[ Ū° İ RST& \_ ]

» ¼½° - αUVWi » ¼Xî ½° İ Y' Z αU  
1Ø[ ' μ» ¼\ £B- ] PBSÖ0.01mol/LE pH=7.0-7.2ØĒ , ê ^· Ā£½° ø\_Ñ` Í  
2Ø/ » ¼ab¶\ £! ½i c 3BdĀİ e fgĀĀäĀĀ(hi IS007E<sup>-</sup> j kl Ū• , İ m¾ĵ ´ no  
pαUVWi äĀĀ)İ qr! M÷ĒÖŠ¶İ » ¼st uvØÍ Ūμÿwx =1:20-1:50£yu- 1mLĀĀä  
äĀĒz c 20-50mg» ¼ ° Í Ø  
3Ø/{ +i | } Ā~l • €• , f„ , Í  
4Ø/ Xî ýi ½° Ā10,000àg • 5â...£t ‡ ^ £Ā , %o: " ¥f„ Æ3¥-201CŠ& Í  
¾ĵ ĀĀĀ- Bâ ā ...> < ø£¾ĵ İ Ē" OŠY' • , -  
1Ø• Ž¾ĵ ^ • " ] PBS• • , ê £' , " ' • , " " £¥1,000àg • 5â ..., \* SÍ Ū| • ¾ĵ : -  
l • -~ \* SØÍ  
2Ø/ \* S+i ¾ĵ " ] PBSè3@A  
3Ø/ ¾ĵ " fgĀĀäĀĀ` | f™8L107D¾ĵ /š> £uœè t £¾ĵ : O• ž• €ÿ• , fæĀ„ , Í  
4Ø/ Ū° ¥2-81C 1,500àg • 10â...£t ‡ ^ £Ā , %o: " ¥f„ Æ3¥-201CŠ& Í  
¾ĵ ĀĀĀ , ÆÇĒ " • Ū° -' 1,000àg • 20â...£[ Ā , %o: f„ £Æ/Ā , 3¥-201CÆ-801C& £  
i ££α¥Í  
( ) -  
1<sup>1</sup> OĀŪ° ! İ ™ & £41C& ¶¥1| £-201Cα• l 1DE£-801Cα• l 2DEÍ  
2<sup>1</sup> Ū° §¨ æ· Z ©ª « , f„ ñœ£• væ· Ū° α- • žv®f„ Í  
3<sup>1</sup> Ū° ™" ø- ä- ! ° f±7£α- z ú™< ¥ÁÍ  
4<sup>1</sup> ² ¥-μf„ Òk £³ ´ μ¶™" • , • αP• ° , L ° • žf„ Í

[ Lumi nex200 ä ã ô ]

- 1. ä ã Ÿw- 50uLA
- 2. Š< VW- ^ á MagPl ex;
- 3. 1 ^ á μ- 50° /» ;
- 4. MFI ¼- Medi an.

[ ...t Ūî ]

1<sup>1</sup> ™" ø/ İ ...t pŪ° ä- ! ° f±7Ö18-251CØ£uœ• ...t ‡ B« ½JKĪ α¾™" £' • [ §°  
@...> İ İ Ū9p...t £ü/42i Ū9ñ...t" ĵ ´ 9Ā& Í  
2<sup>1</sup> ŪÜÝ(αĀŸ)- Ā# ŪÜÝz c ŪÜÝpBĀ0.5mLEĀý , ±7Ā3-Ā10â ...£UJ • • ÆÇÖ ; Ē  
ÉØ£Çé8L50.0ng/mLÍ Ūî 7DpBŪÜÝİ EP £ĀDEP Ēz c 300ĒLi ŪÜÝpBĀ£uĒ %j  
@İ x pBb50.0ng/mL, 12.5ng/mL, 3.12ng/mL, 0.78ng/mL, 0.2ng/mL, 0.05ng/mL, 0.01ng/mLE ŪÜÝp  
BĀ(0ng/mL)-~ , LÖ, ÓÍ L&Í => ñœ %£Ā@=>' ™" f İ ŪÜÝæĀÍ

item	1	2	3	4	5	6	7	Tube
PLEC	50.0	12.5	3.12	0.78	0.2	0.05	0	ng/mL

3<sup>1</sup> f, æÅĀñf, æĀB– Detection A ñDetection BB™ " Ĩ Ĩ ĐŠÆÑÒ • • , £O™ÓÔB ŽÆ#Āi ĀŸ†w+ ŌÍ | " øâÖOf, ÞBĀAEB 1:100ÞB(u– 10ÊLf, æĀA/990ÊLf, ÞBĀ)E x âØ½EÞBøÛk - \_ÚÛýi Ā@=> ì Ĩ 1 μÛX(100ÊL/Ó)E=ŸÛXJ Ĩ ÛX0.1-0.2mLÍ

4<sup>1</sup> éèëĀ– 580mL Æ Ž z c 20mLèèĀŌ30à ØÞBf 600mLf Þ, Āé8Í  
( ) –

1<sup>1</sup> ŪÛŸi ÞBα¾–~ BŌË•žÍ

2<sup>1</sup> ŪÛŸ' ¥ | " ø15â...Ī ÛXÍ • ŪÛŸB¾™" «@Í

3<sup>1</sup> ŪÛŸ<sup>1</sup> f, æĀAP, Ā<sup>1</sup> f, æĀBP, Ā'™" É Ĩ ÞBĀÛXEÞBĀα¾Ø" Í " Āà••áâ xâØ½E ; ĒÉÍ L&Í =>–œi ŪO%'" Šμ £úÿÛŠμ Ā÷Í ' j k ì Ĩ μāOÛ XE- μαt™" ŠμÛXĨ Y' Ōu [ f, æĀAJ £«@αt¶¥10ÊLØEO ; äbé8âæÍ

4<sup>1</sup> ' ç` £™" è~ÞBI Ĩ ŪÛŸ<sup>1</sup> f, æĀAP, Āpf, æĀBP, ĀÍ

5<sup>1</sup> èèĀŌ30xØËu –éā§£' \_7êf±7£••Ø½E£f+–éFèæĀi •žÛXÍ

6<sup>1</sup> ...††Éi ā...†L Ā£i Ĩ Ĩ Ū3bÞ, Ā,™" £BÛ3I ðË: ¾•Lñð MμæE MóôE Oñ=>Ë " ðö÷ð8æ£äb=>–œαŪOEøfFèùáÍ '™" 2 Û3Í

[ Ū° • , ]

1<sup>1</sup> ° úûBü...††° ýþÿ£αü•™" •...†† äbi ° " öþÿ£'™"™" øxâ + ° Ĩ :¾™" μ£- x Ĩ ° Í

2<sup>1</sup> =>ø^- \_- , ° È „•é8Í é8αBÛÛ Ĩ ĪJ£" Ĩ Ō´Ç´=>Ĩ « ÝÞ BĪ ŌÍ uœ ÝË „•é8I ÆI £' ü ° ü' Ĩ ÞBÆé Í ° ÞBI " ÞBSÍ

3<sup>1</sup> f ° α Ĩ Bš>œ ° < Ē£ðö•ž- =>>Í Ç %Eû( ) ° Í

4<sup>1</sup>™" " ĀĀĀXĨ Ĩ »¼½°Æ¾¿ù[Ā:¾Z ¥ " •Mi c =>–œ æÍ

5<sup>1</sup> ° L¾¿ĀĀĀ, £•L•V ° Á • £u–¾¿! " 1¾¿Òμ<sup>1</sup>R JK#£ Ō:¾ B f, α§i \$%Í

6<sup>1</sup> &'•, Æ`»•, £' ( ) ñ\*)`»•, £:¾•LT°HÝ™" Ĩ f, ³ÿñ+, ³ÿα- Ū £•αxf, §Í

7<sup>1</sup> ðö™" fg ° £& JKI . :¾Z••, /ÁÆO%• =>–œ æÍ

[ 1, 23 ]

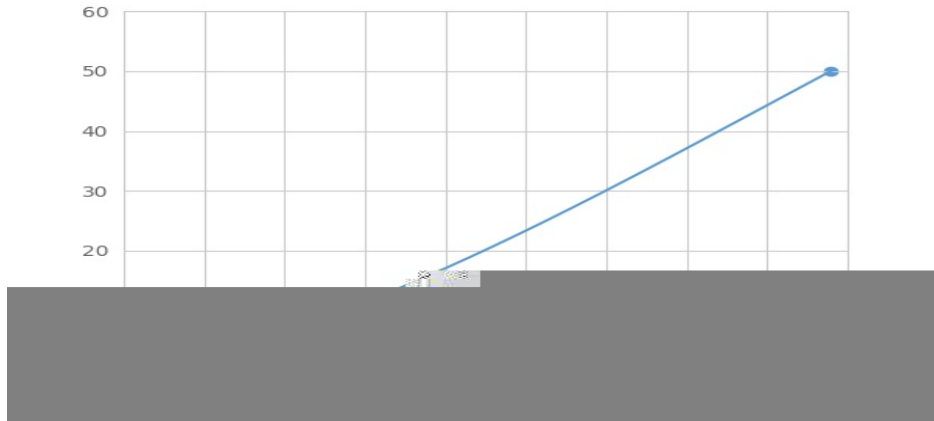
1<sup>1</sup> / =>Ōi ĀŌÍ z c 200ulâãäåĀ" Ō- 4£ 5, B ŪŌ ÷Ā±76 10â...£<, Ĩ ÁŌÍ ĀŸ£%: " ¥z 1, Í

2<sup>1</sup> z –âöðŪŪŌ<sup>1</sup> „ ÝŌ<sup>1</sup> Ō, ŌÍ ðŪŪŌŌŌ£j @z c 100ÊLαUé8i ŪÛŸŌ7...†ŪĨ 2 ŌÍ Ō, Ōz 100ÊLŪÛŸÞBĀŌ7...†ŪĨ<sup>a</sup> 82«, « ØE2Ōz „ ÝŌÆÞB, Ĩ ÝØ100Ê LEĀŌz 10ul^ á£ ŪŌz ĀŪŪE371c ŪŌ ÷7ê1¶J£ Ç9: ð3L 800rpm£ ; 2-4mm£ <=^ á†/Í

3<sup>1</sup> Ā^ £2â..., † ĀŸ£^ &>Ĩ! " ŠÍ Á£α" èèÍ

4<sup>1</sup> ĀŌz f, æĀAP, Ā100ÊLŌ! " øÛXØE ŪŌŪŪE371c ŪŌ ÷7ê1¶J£ Ç9: ð3 L 800rpm£ ; 2-4mm£ <=^ á†/Í





(€• , )f„ ...† ‡ ŪŪ

[ f„ ]

0.05-50ng/mL.

[ « f„ • ]

v ¼L 20DÖ, ÝŌ%ŪŪÝÞBÂØ„ ´ ï g! ¼z 8Ì ŪŪæ ü´ ï é 8Í

[ • ‰ ]

° ...† ‡ " ¥f„ PLECE ~f„ TÇÈÉ••M' > T' " Ç´ Í

¥" + < Æñ ° E•ï • XEα: ¾F b ÉÊÆÉ••M' " Ç´ f„ E•v° ...† ‡ : ¾T ~f„ ï ÇÈ•M ´ " Ç´ Í

[ ã™8 ]

ã™8" Ý„ ´ ¼ï O• – ÒCVh%Í CVŌ%Ø = SD/meanà 100

–Í æ– [ U–@...† ‡ ü ´ 1 È´ ¼´ ¼ ° • ž´ µf„ ÉÃ´ ° m™„ ´ 20

@ÉâÖŪŪαUé 8 ° ï g! ¼ñSD¼Í

–Kæ– o [ 3DαU–@ï ...† ‡ âÖü ´ 1 È´ ¼´ ¼ ° • ž´ µ„ ´ ÉÃD °™" U« ...† ‡` É„

´ 8@ÉâÖŪŪαUé 8 ° ï g! ¼ñSD¼Í

–Í æ– CV<10%

–Kæ– CV<12%

[ Q´ ‰ ]

~„ ´ É...† ‡ B ®Í š " µ¶ 78& É> ‰/ : /¶ ¥5Í

Lœ¶ í • Ū...† ‡ • žø, f„ ¼ï ©ª É=>±ï Ý 9Àì - µ&>« É; ÇP=>±Í 78´ 4

8ñ7ê9ÁÍ Ç@ U« =>ÇE• ž 1, : œÉαLâæÍ

[ => ¥Ō ]

1¹ =>øŪŪÝ¹ ...† ñ ° Ūî A

2¹ z ŌŪŪÝÆ ° Ø100ÉLEz ^ á É371C ŪŌ ÷ | ê1¶JA

3¹ ^ İ ÁÉz f„ æÃA100ÉLE371C ŪŌ ÷ | ê1¶JA

4<sup>1</sup> ^ ê Ô3@A  
 5<sup>1</sup> z f „ æÃB100ÊLE371C Ç| ê 30â ...A  
 6<sup>1</sup> ^ ê Ô3@A  
 7<sup>1</sup> z èÃ150ÊLE 6 2â ..., GÒÍ

[ Š> ]

1<sup>1</sup> ¥" 9ÀñŠ <Æ g" x¾üž h©ùžī (ª • žēi ī « ´TāãÉ° HÝ: ¾ B«  
 ´ī Mµ<Æ- - Í  
 2<sup>1</sup> « @ī => -œT...tī %<sup>0</sup>1 => ī ÉÊ1, Oñ=>Ý ™aÉÊÉ' š Üî x ī Û° ī ~ Í  
 3<sup>1</sup> xU-@ī U« HÝ: ¾Z É- æÖFu-f „ • 1° ±8É' j k...t†Í š> œ• ž=>1, f€² ³  
 Ž-š> œ•, Ž Í  
 4<sup>1</sup> ° ...t†Ü´...t Ü´ ™" Éx¾Ø" ÇµXä©ī HÝÍ B \] ^\_° ...t†ī =>š> ¶Z{ +«  
 ī f „ -œÍ  
 5<sup>1</sup> B ñ7ēl ðĒ ĵ /...t•, B¹° ĒÍ ...t#Ã Ã» O<= WpŠ" • óôÉ• L•, Á  
 ī Á / „ ¼xÜOÍ  
 6<sup>1</sup> ¼ ½ī ¾ÔÔÖĒ: ¾Z É- • MĒvLeb" ĵ ÉxZü=>-œäbXY©ª Í ÜÖB ™"  
 JH eÀÁ[ ŠÉ' çùø[ ŠÍ  
 7<sup>1</sup> ¥1, xcd¹ 1, ĀåÆùåo" GÒôðÃ#N : ¾ ùå -œē H" Í =>ø' Ä¾ÅGš>  
 œÛÆ...ô ÷ Í  
 8<sup>1</sup> B ° Xī Oñ1, ī ĀDI ðĒī O" N: ¾ xUī =>-œÉ OLVù =>-œē : `É%É=  
 >ī Ā« 21, Nī t \] P X Í  
 9<sup>1</sup> ...t†BŞÇø! ~l \] MfÉĒ ¥±É 9Àñr =>± 9Àæ• É: ¾Z äb=>-œTŞÇ-œx«  
 ĀxU-@...t†-KæĒ-ī \$%Í  
 10<sup>1</sup> ° ...t† TÇµÇĒUV...t†ÆxUY' f „ U«l ī • ī HÝüüxÉ Ox] ^f „ -œx« ī  
 \$%Í  
 11<sup>1</sup> " ¥Xī ...t†Ē³Ýī ĵ Í (-bL` »•, ÉĒ ¥ī ` »•, o[ī Ī ½¹ hĪ -Ð¹ ñ" Yf #  
 r xUE O³ ´´´ &Í • ...t†: " ¥Çµúû` »•, ī f „ É-b³ ´sæöö ™" ...t†f „ `  
 »•, Í  
 12<sup>1</sup> ' -Ñ ÝĒ „ • ī é8ÉÆ ðÚ- =>O´ Ýf „ é8Í Ò ī •, : O<= ° Ē f•l µ•  
 Š...t†f „ Í  
 13<sup>1</sup> • ...t†: ¾x' " ¥« =>° ý %xO´ī Ó=> Ýī f „ ÉyuÉ² • Ô^=>#Í  
 14<sup>1</sup> ° 1, š> U ´ " ¥48T...t†Í  
 15<sup>1</sup> • ...t†• ž ĵ Ç ™" Éu/Ç" ¥| Š" ©ÆXYÇµ" ŌÉ³ úû/ xü• vH" ī ÖxpÿÉøxÜ  
 ÚXY' ŪÿXÍ

[ ÖxÁÜ ]

Öx	: ¾( •	ÁÝŸP
ÜÜ æ	ÜÜÝÜî æeO	• žeOī ÜÜÝß8ßß
	[ ñēëxâ	xâī [ ñēë
	ĀxāO	f, pÿe Ā÷

ã™8	^ áêëæxâ	" š> æt? xâ6 èëp?É
	Ø½æxâp [ ...tæ	xâØ½p [ ...t
	` £œ" 1 ï ÷ pÛÚ	™" z ÷ t à á f i 1™"
	z æãO	f, pÿe Æ÷
MF1¼	ÃÓzi ...tµæãO	ÿe Æ÷ £ãOzc...t
	7êJKæeO	&Í x ï 7êJK
	7ê78æeO	...t t g° f ± 7û&Í ÜOï 7 ê78
	PEÛo• Æ	à á ...t
	PEÛo• ÞßÌ Òæü	" 6š> æ= > 1 ,
	• § GÒJ K GÒ	Bš> æµ¶ï GÒJ K Î GÒ
° ¼	æeOï ° Yf	eO ° £™" fg ° • ž =>
	æeOï ° * Sp• , Y'	R[ eOï ° * Sp• , Y'
	„ • MB ° ÈÌ µ	™" fg ° £` £=>