

• ž Ÿ i ™ " E „ ¥ | § .. ©!

a ≪ ▷

[ - ® - " ]

° ... † ‡ ± " ² • Ÿ • • ' ³ ' „ ³ — ~ μ¶· μ „ · ¹ ° » „ . ¼ ½ ¾ ½ Å · ¼ ½ Å Å Å ¶ Å Å Å Ç È " • Å  
 Ÿ É RETNÈ ´ È

[ ... † ‡ ] [ ]

... † † †	Đ'	... † † †	Đ'
96ÑÒÓÔÓÖx	1	96ÑÒØÙ	4
ÚÛÜ	2	ÚÛÜÝPÀ	1B 20mL
^ à	1	á â ã ä Å	1B 20mL
f „ å Å	1B 120æL	f „ ÝPÀA	1B 12mL
f „ å Å BÓPE-SAx	1B 120æL	f „ ÝPÀB	1B 12mL
ç Å	1B 10mL	è é ê Å Ó30B x	1B 20mL
™ " Š > œ	1		

[ ë ï í î ï í ð ... † ]

1. Lumi nex MAGPI XñE Lumi nex 100òE Lumi nex  
 200òE Å Bi o-Radñ, Bi o-Pl exná â ó Øô õ ö ö ™ " ÷ ø ÷ - ù, ú û ü ì f ý p Ü x
2. œý Å ý Š ' Å ö ö
3. ÝP Üî EP .
4. Å Ž
5. ^
6. é Å î í ö
7. 0.01mol /L Ö Å 1B x      å ä      (PBS) E pH=7.0-7.2
8.                ö
9.    Ú Ò        ö

[ ... † ‡ ] [ ð ] [ ® ]



1.      † ...†‡-    ...† ! ...†" Ú#Ã \$% Ă&' ( €) \* ...†‡+&, - . ÚÛÜ· f „ åÀÃ  
· f „ åÀB/ Ð%ÑÒ% ¥-20OCEÅ1...† &2¥4O% í " Ă  
2.    †" +† ...†‡- 31...† 4ë! 5...†" Ú# \$† 67% Ă  
' (-  
...†‡) Ú89: ; €! <=ë>9á ? †" @†" +† 31...†‡ôõAB? <= +1CD† †" EF Ă G  
ÜH®I J / †ŽÃ† Ú#KÛE%L®†      1 á MN%OP³† Ă

[ Ú° ī QRS% ]

- μΠ-.) R¥μΠá Éí TμÚ° AU6 22VI Ä4OCHWE X+1,000Bg • 20á YEZÄΠ [ 9E  
· ÄΠ 2¥-20OCÄ-80OC% E\] ^\_` aË  
μ,-" EDTAÄb, cK• d†QRÚ° Eú. Ú° AQR+í 30á Yl ¥2-8OC 1,000Bg • 15á YEZÄΠ  
[ 9f, EÄ. ÄΠ 2¥-20OCÄ-80OC% E\] ^\_` aË  
¼½ÅÄÄΠÄÅÄÆ" • Ú° - &1,000Bg • 20á YEZÄΠ [ 9f, EÄ. ÄΠ 2¥-20OCÄ-80OC% E  
\] ^\_` aË  
' (-  
1. /ÄÚ° èe % E4OC% V¥1f E-20OC¤g H1CD E-80OC¤g H2CD E  
2. Ú° hi åµj kl m+f, noE• påµÚ° ¤qrsptf, E  
3. Ú° ™" ÷ - äu vwU6E¤ - xù™ya¿ E  
4. z ¥{ ' f, D| E} ~• €™" μΠ• ¤Oµ, cK ° r sf, E

[ Lumi nex200 áâó ]

1. á â Ÿ, - 50uL@
  2. Š < f „ - ^ à MagPlex;
  3. ... ^ à ' - 50† /‡ ;
  4. MFI ^ - Medi an.

[ ... + ÚÍ ]

1.  $\text{TM}^m \div . \quad \hat{\imath} \dots \hat{\tau} \circ \hat{y} \circ \hat{u} \quad v w U 6 O 18 - 25 O C \times E \% o S \dots \hat{t} \hat{f} A \ll \langle | J \rangle \quad \text{OE}^{\text{TM}} \quad E \& \bullet Z h^o$   
 $? \dots = \ddot{e} \hat{i} \quad \hat{U} 8 y \dots \hat{t} E u. \quad 31 \hat{i} \quad \hat{U} 8 \hat{o} \dots \hat{t} ! \quad \bullet \quad 3 \quad 8 \check{Z} \% \quad \check{E}$

2.  $\hat{U} \hat{U} \hat{U} (\hat{^m} \bullet \hat{U}) - \bullet " \quad \hat{U} \hat{U} \hat{U} x' \quad \hat{U} \hat{U} \hat{U} Y P \hat{A} 0.5 m L E' \quad \hat{U} + U 6" \quad 2 \{ " \quad 10 \circ Y E \bullet I \quad - - - \sim O \backslash ] \quad \text{TM}$   
 $\check{s} \times E \check{A} \check{e} 7 K 2000.0 \text{pg/mL} \quad \check{U} \check{I} \quad 7 C \check{Y} P \check{U} \check{U} \check{U} \hat{i} \quad EP \quad E \bullet CEP \quad E x' \quad 300 \times L \hat{i} \quad \hat{U} \hat{U} \hat{U} Y P \hat{A} E \% o e \quad \$$   
 $\bullet ? \check{z} \check{Y} \check{Y} P \quad 2000.0 \text{pg/mL}, \quad 500.0 \text{pg/mL}, \quad 125.0 \text{pg/mL}, \quad 31.25 \text{pg/mL}, \quad 7.81 \text{pg/mL}, \quad 1.95 \text{pg/mL}, \quad 0.49 \text{pg/mL}$   
 $\hat{U} \hat{U} \hat{U} Y P \hat{A} (0 \text{pg/mL}) ; \quad \text{CcK} \hat{O} \hat{O} \hat{N} \hat{E} K \% E < = n o \quad \% E \bullet ? < = \& \text{TM}^m \quad \text{OE} \hat{U} \hat{U} \hat{U} a \hat{A} \check{E}$

item	1	2	3	4	5	6	7	Tube
RETN	2000.0	500.0	125.0	31.25	7.81	1.95	0	pg/mL

3.  $f$ , åAAÖf, åÀB-Detection A ÖDetection BA™ " ÷ & " ¥| § .. Ä©<sup>a</sup> • « ¬£ / TM- ®A  
 - Ä" ' î ÀY° , \* ± E | " ÷ á² / f, YPÀAÄB 1:100YP(%o- 10> Lf, åAA/990> Lf, YP  
 ÀA)E³ á' » EYP÷μ | - ¶· , üî • ? < = öî ... ' 1° (100> L/N)E < » 1° | - 1° 0.1-0.  
 2mLÉ

4. èééÀ- 580mL      Ä      Ž x' 20mLé èÀÓ30ß x YPw600mLw¼c Àè 7 E  
 ' (-

1. ÜÜÜí YPŒj CAÖEr s E

2. ÚÚÜ&¥| " ÷ 15á Y| 1° ËŠÚÚÜ½Œ™" « ? Ë
3. ÚÚÜ· f „ åÀA¼CÀ· f „ åÀB¼CÀ&™" Ç- î ÝPÀ 1° EFÝPÀŒ“ E“ À¾--çÀ  
³ á' » E\ ] ™š EK%E<=noî ÜN‰&™" Š' EúþÜŠ' ÀÖE&• | eî ' ÁN¹  
° E, ' œÀ™" Š' 1° î Á' Ó‰ Zf „ åÀAI E« ? œÀV¥10> Lx E/\ ] Ä è 7ÅÆE
4. &ÇÈ\_™" ÉÈÝPHÍ ÜÚÜ· f „ åÀA¼CÀYf „ åÀB¼CÀE
5. ééÀÓ30xxÉ‰ nÈâhE&¶6l wU6E--' » Ew\* nÈETåçÍrs¹° E
6. ...†‡ÉÍ á...†K ÀEÍ Dë¹ 2 ¼CÀ+™" EA¹ 2HÑÉ9Œ• KÒÓ L' AEÀ LÔÓE  
/ Õ<=É " ÖxØÓ7ÆEÄ <=noœÜNÆÙwETÚÅE&™" 2 1 2E

[ U° « - ]

1. ° ÜÜ½Ý...†‡° PßàEœÝ•™" Š...†‡ Ä î ° àÖBàE&™" à™" ÷ ³ áâä\* ° î  
9Œ™" ' E- å³ æî ° E
2. <=÷ ¶- , ° Éç „ • è 7Eèè7œAÜÜéêî eî î | E" Dí î N³ Åï ³ <=î mð ÜY  
PžÐE‰o ÜEç „ • è 7HñÄHòE&Y ° u' eî ÝPÄèoE ° ÝPë" PBSË
3. Ô f ° œÖEÀš> œ ö ° yÉEörs- <==EÅ %œEú' ( å ° E
4. ™" ÷ Ø³/4çÀ° î 1° » , Ä¼½øZÀ9Œj ù¥úù÷ø• Lî ü' ýþ<=noýÆE
5. Ô ° K¼½ÅÄÄ¶E• KŠf ° • • , E‰- ¼½ · ¼½D' · Q | J E / 9Œ A  
f „ œhî E
6. úû X ÖÄE¹ ÖEö ð E¹ ÖE9Œ• KS° GÜ™" î f „ • Ýð • Ýœ 1  
E• œÖf „ hE
7. ôö™" œ ° E% I J H 9Œj • Õ çÄ %œ• ýþ<=noýÆE

[ c ]

1. . <=Öî • Ñì x' 200uláâääÀ" / - E + A ÚÒ öÄU6 10áY E y + | • Ñì  
ÀY E [ 9" ¥x cE
2. x - á² î ÜÜÑ· ç „ ÜÑ ÖÖÑEí ÜÜÑ7ÑE• ? x' 100> Lx • è 7î ÜÜÜO ...†Üí 2  
x EÖÖÑx 100> LÜÜÜÝPÀÓ ...†Üí a m+ « x E 1 Ñx ç „ ÜÖÄÝP+î Üx 100>  
L E • Ñx 10ul ^ à E ÜÒx ÄØÜE37OC ÚÒ ö6l 1.5VI E ~ î 2K800rpmE 2-4mm  
E ! ^ à ° E
3. Ä^ E2áY+" ÀY E^ %#î " | • Eœ" ééE
4. • Ñx f „ åÀA¼CÀ100> LÖ! " ÷ ¹ ° x E ÜÒØÜE37OC ÚÒ ö6l 1VI E ~ î 2  
K800rpmE 2-4mmE ! ^ à ° E
5. Ä^ E2áY+" ÀY E• Ñ" 200> Lí ééÀéêE\$š1-2áY E" Ñì ÀY E È\_éØ3?  
E m+ « ? éé + E ZÄ%h 31î ééääÀE. ÜÒ%&A ' ÄE. ( åAÑì î ÀYTî •  
E p HÑ) 9i ~ ^ éØ\* + E E
6. , ^ E• Ñx f „ åÀB¼CÀÓ! " ÷ ¹ ° x 100> LE ÜÒØÜE37OC ÚÒ ö630áY E ~  
î 2K800rpmE 2-4mmE ! ^ à ° E
7. Ä^ E2áY+" ÀY E• Ñ" 200> Lí ééÀéêE\$š1-2áY E" Ñì ÀY E È\_éØ3? E Ä  
' • 5E
8. , ^ E• Ñx çÀ150> LE 2áY E™Š< - . / E [ 9Ä\* ODE  
' (-
9. ...†Üí - Üí « ? <= e Äî Ü8EÅÆí 91ŠÑÒÄ: " Ee E! 5š> œÄ>% E/í " ?  
™" E

2.  $x = \text{CE}^{\text{TM}}$  « ?%o $\hat{I}$  23  $E\backslash$ ]  $\hat{O}\hat{O}\hat{E}x$   $I'$  (  $\hat{x}\hat{A}$  4 $\check{S}G"$   $E$ .  $\hat{U}x\hat{Y}$   $\hat{U}\hat{O}\pm\hat{I}$   $E$ , '  $\hat{x}5\hat{O}\hat{N}^- E--6^-$  »  $\hat{E}S^+$  ... $\hat{t}x'$  «  $E\hat{x}$   $H\hat{N}\hat{E}^a$  «  $C\hat{N}Sm+$  «  $C\hat{N}x$   $IJJ7$ , '  $V\hat{O}$ « 89° A10 $\check{A}Y/\hat{I}$   $x\%oO$ : {  $E$ .  $j\hat{y}\hat{p}\hat{x}\cdot\hat{I}$ ; - 6 $\hat{I}$  <|  $J E1\cdot$  >  $=>K I^*$ , ' ^ $\hat{I}$   $\hat{U}$   $N\%o\hat{D}\hat{E}_\%o\hat{E}K?$ , ^ $\hat{I}$   $\hat{U}N\%oE\cdot\hat{E}^I$  2\_  $\hat{N}rs<=\hat{E}$
3. 6 $\hat{I}$  - K !  $\hat{U}$  @ $E<=I$  &.  $x\hat{A}' \hat{A}\hat{O}\hat{U}\hat{I}$   $\hat{U}\hat{O}2\hat{Y}$   $\hat{f}\hat{I} E/\backslash$ ]  $A\hat{Y}$  @ $E\hat{e}\hat{O}+^+$ , - rs .. c $\hat{E}ABI CM^-$   $\hat{V}$ ]  $\hat{U}\hat{O}$ «  $\hat{Y}\cdot D$   $E\cdot I^-$   $EFGHI^3$  6 $\hat{I}$  |  $J\hat{y}67\hat{E}$
4. éê-<sup>3</sup> áéêJ KÈÂEA• ?éêHÑÉEMÄ. éêÄET| •  $\hat{E}\%oO^{\text{TM}}$  i ~ é $\hat{O}^*$   $E\&ALM^{\text{TM}}$  +Í "  $\hat{Y}NO<=H\hat{N}\hat{E}\hat{E}$
5.  $\%oO<=U\hat{I}$  7 $\hat{O} \hat{Y}60\%E\cdot\hat{E}^{\text{TM}}$  x  $\hat{O}\hat{o}\hat{n}$  7 P $\hat{E}$

### [ <= ]

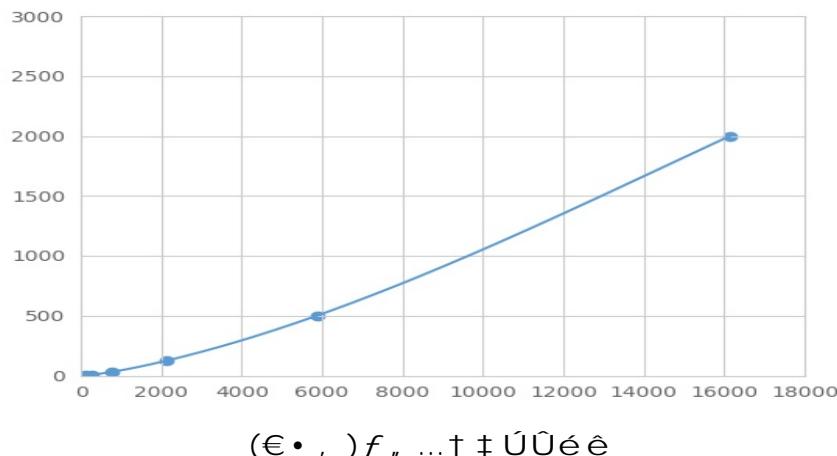
. RETN•  $\hat{Y}\hat{o}\hat{O}\hat{Y}^{\%o}\hat{S}<$  QR $E^\circ$  S $\hat{C}T\hat{Y}E\hat{U}\hat{S}<$   $E\hat{a}^2x'$   $\hat{U}\hat{U}\hat{U}\hat{A}\hat{U}^\circ$   $E\hat{A}\hat{E}RETNSV\hat{F}\hat{Y}S\hat{C}T\hat{Y}$   $\hat{A}\hat{I}$  •  $\hat{Y}nW\hat{E}X+x'$  " • ,  $\div\hat{I}$  RETN•  $\hat{Y}E\hat{A}$ .  $nW\hat{I}$  " • ,  $\div\cdot$   $\hat{Y}\hat{e}\hat{O}+\hat{E}x'$  PEUX $\hat{I}$  Y $\hat{Y}$ ,  $EPE\hat{O}$  Z@+  $E\mu$  | MFI<sup>3</sup> Median Fluorescence Intensity $\hat{x}\hat{I}$  { V $\hat{Y}$   $\hat{U}\hat{E}\hat{I}$  RETNè 7- NÇÈ È" Luminexá âó "  $E$ . , Üè 7 $\hat{E}$

### [ . ]

[  $\hat{U}\hat{U}\hat{U}\hat{O}^\circ$  MFI<sup>3</sup> &,  $\hat{O}\hat{O}\hat{N}MFI^+$  +cœ $O\backslash$ ]  $\hat{o}x E\%oI$  2\_  $\hat{N}E^+$  Z $\hat{A}P$  ^ . ,  $\hat{E}/\hat{U}\hat{U}\hat{U}\hat{I}$  è 7 K\_`  $\hat{U}\hat{O}\hat{A}\hat{Y}\hat{D}`$   $\hat{U}x E\hat{M}FI^+$  Ka`  $\hat{U}\hat{O}\hat{A}\hat{Y}\hat{D}`$   $\hat{U}x E\hat{b}\hat{h}\hat{U}\hat{U}\hat{e}\hat{e}\hat{O}\hat{m}\hat{d}\hat{A}\hat{N}O^-$  • cd $\hat{A}\hat{N}$ . ,  $\hat{I}$  R $2^+$  +<sup>3</sup>  $E/R2^+$  efg $\hat{Y}1K\hat{U}x\hat{E}\cdot\hat{E}^{\text{TM}}$  hi ° c $\hat{e}\hat{e}j$  Žrsáâ E%ocurve expert 1.30 $E\mu$  | ÜMFI<sup>3</sup> E  $\hat{u}\hat{U}\hat{U}\hat{e}\hat{e}k\hat{h}\hat{C}^-$   $\hat{I}$  è 7 $E\hat{I}$  /  $\hat{Y}\hat{p}\hat{z}\hat{D}\hat{@}\hat{A}^\circ$   $\hat{U}\hat{U}\cdot\hat{I}$  è 7 $S\hat{M}FI^+$  . , h $\hat{U}\hat{U}\hat{e}\hat{e}\hat{e}\hat{i}$  cd $\hat{A}\hat{N}O\hat{E}$ .  $\hat{U}\hat{I}$  MFI<sup>3</sup> m'  $\hat{A}\hat{N}O\hat{E}$ . , h Üè 7 $E\hat{I}$  /  $\hat{Y}\hat{p}\hat{z}\hat{D}\hat{E}[$  K Ü $\hat{I}$  <> è 7 $\hat{E}$

### [ n $\hat{D}\hat{I}$ ]

K?o $\hat{Y}\cdot$ ,  $E$ , è 7 $K\hat{I}$  ' • MFI<sup>3</sup> K• '  $E\}$  ~ bœl 4Q"  $\hat{U}\hat{U}\hat{U}\hat{I}$  MFI<sup>3</sup> cKa`  $\hat{U}\hat{O}\hat{X}p\times E\hat{U}\hat{U}$  Ü $\hat{I}$  è 7K\_`  $\hat{U}\hat{O}\hat{Y}p\times\hat{E}\cdot I$  K?...=no $\hat{I}$  ; q%oEœ $\hat{E}\hat{o}\hat{z}\hat{I}$  O r $\hat{D}|$  • J $\hat{Y}\hat{D}^+$   $\hat{E}\cdot\hat{E}^{\text{TM}}$   $\hat{Y}\hat{D}^+$  ô s  $\hat{U}\hat{U}\hat{e}\hat{e}\hat{e}\hat{E}\hat{U}\hat{Y}<=$  c8 $\hat{Z}\hat{I}$   $\hat{x}\cdot\hat{O}\%o$  c $\hat{a}\cdot$  Åtu. é $\hat{O}tu\hat{y}678\hat{Z}$   $\times E\hat{U}\hat{U}\hat{e}\hat{e}\hat{e}\hat{i}$  MFI<sup>3</sup> j  $\hat{E}v\hat{E}$   $\hat{o}\hat{z}\hat{I}$   $\hat{U}\hat{U}\hat{e}\hat{e}\cdot\hat{z}$  w $\hat{a}$   $E<=\hat{a}\hat{e}\hat{A}\mu$  | i  $\hat{E}\hat{I}$  <=ôs  $\hat{U}\hat{U}\hat{e}\hat{e}\hat{E}$



### [ f „ $\hat{e}\hat{I}$ ]

1.95-2000pg/mL



6. <sup>a</sup> « 1 - ÓÒÑÉ 9Œj • > • L E p K N K i - E œ j Ÿ < = n o Ä A B k I Ë Ú Ò A <sup>TM</sup> " I 1 Õ ® - ° Z h E & Ç ø ÷ Z h E
7. Ù ¥ c â œ L M c ± Å Ä Ú Å f " O Ð Ó Ñ <sup>2</sup> M 9Œy p Ú Å n o i G " Ë < = ÷ & <sup>3</sup> ¼ ' O Š > œ ú µ ... ó ö Ë
8. A ° ° í / Õ c î • C H Ñ É î ÷ M 9Œy p œ • î < = n o E / K ? œ ñ < = n o i 9 È \_ % o E < = î • « c M e Ä E F 9 ° Ë
9. ... t f A h ¶ ÷ Ê H E F L f E . Ù ¥ ± , 8 Ž Õ [ < = U 8 Ž A E v E 9Œj Ä < = n o S h ¶ n o œ » p Ä œ • € ? ... t f E J A E 1 { î Ë
10. ° ... t f S Å C ¶ ° • f ... t f Ä œ • Ä' f „ • « » î • î G Ü u Y Y E / œ ¼ , f „ n o œ » p î Ë
11. " ¥ ° í ... t f E • Y î ] ½ ¾ K K Ë 1 Õ E . Ù ¥ í Ë 1 Õ f Z î ï < . Q A • Á . Õ ÷ Ä O [ œ • E / } ~ z ' % E S ... t f 9 " ¥ Å C Ü Ü Ë 1 Õ î f „ E ¾ K } ~ ) œ Õ Õ <sup>TM</sup> " ... t f , E 1 Õ E
12. & - Ä Ü E Ç „ • î è 7 E Ä a î . - < = N <sup>3</sup> Ü f „ è 7 E Ä î « - 9 / ! ° E ç f • E ' g h ... t f , e î Ë
13. Š ... t f 9Œœ ' " ¥ « Û < = ° P % œ N <sup>3</sup> î ï Ä < = Ü î f „ E Å % œ z • A E , < = E
14. ° C Š > • ' " ¥ 48 T ... t f E
15. Š ... t f • ž j ¢ <sup>TM</sup> " E % o . Å " ¥ | § " © Ä A B Å ¢ " Ç E } Ü Ü . œ Y • p G " î È E B à E E œ E l A B ' l à A E

### [ È E œ î ]

E E	9Œ •	ç î Ä Ø
Ú Ü é ê A E	Ú Ü Ü Ü Í œ N N	r s N N î Ú Ü Ü Ñ 7 Y P
	Z Õ é e œ <sup>3</sup> á	<sup>3</sup> á î Z Õ é e
	À œ Á N	f k y p N À ö
Ä e 7 Ò	^ à é e œ <sup>3</sup> á	! š > œ Ä > <sup>3</sup> á é e y \$ š
	' » œ <sup>3</sup> á y Z ... t œ æ	<sup>3</sup> á ' » y Z ... t
	È _ Ò " . î ö y Ø Ù	<sup>TM</sup> " x ö Ä Ö Ö œ î . <sup>TM</sup> " œ î î ö y Ø Ù
	x œ Á N	f k y p N À ö
M F I ^ Ò	• Ñ x î ... t ' œ Á N	p N À ö E Á N x ' ... t
	6 l I J œ N N	% E <sup>3</sup> æ î 6 l I J
	6 l 6 7 œ N N	... t Ä P v w U 6 ú % E Ü N î 6 l 6 7
	P E Ú X • ±	Ö Ö ... t
	P E Ú X • Y P ž D œ Y	! 5 š > œ < = c
	g h O D I J O D	A š > œ • € î O D I J l O D



° ^	¤ NNî ° ÄO	NN ° E™“ ¤ ° r s < =
	¤ NNî ° ) Rý « ¬Ä'	QZ NNî ° ) Rý « ¬Ä'
	ç „ • L A ° É Ê ` ð	™“ ¤ ° EÈ_< =