

Roaring Spring.

Compositions

Name Amrutan Bishoyee
School New Jersey Medical School
Grade MSB F-451

9 3/4 in. x 7 1/2 in. 60 Leaves

Roaring Spring, PA 16673



02/03/98.

- ① weigh ~ 10 mg MEA in Argon bag.
Add $\sim 500 \mu\text{l}$ PBS to make 20 mg/ml , filter it.
- ② Dilute 1:10 to have 2 mg/ml

$$\text{Wt of glass tube + MEA} = 3.59984 \text{ g}$$

$$\text{Wt of glass tube} = 3.57745 \text{ g}$$

$$\text{Wt of MEA} = 0.02239 \text{ g}$$

$$20 \text{ mg} \equiv 1 \text{ ml}$$

$$22 \text{ mg} = \frac{1}{20} \times 22 = 1.1 \text{ ml.}$$

02/05/98

Wipe test

		cpm	mR/hr
Background	=	1	0.1
Area 1	=	2	0.2
Area 2	=	2	0.2
Area 3	=	3	0.4
Area 4	=	6	0.4

02/06/98

Tube # Coulter Count
(100ul; MS 500ul)

1	679, 688, 644
2	480, 458, 469
3	554, 539, 513
4	676 , 586, 588, 611
5	650, 672, 574 564, 549
6	650, 625, 638
7	451, 456, 440
8	494, 486, 527
9	440, 432, 443
10	573, 580, 595

12-15 p.m.
02/10/98

Tube #	Cpm for 10ul media
1	1, 2, 0
2	2, 0, 1
3	1086, 1107, 1067
4	2105, 2135, 2290
5	2914, 2957, 3310
6	3, 1, 0
7	3, 0, 1
8	1096, 1215, 1211
9	2215, 2200, 2349
10	3131, 3410, 3597, 3454

-15 p.m.
10/98

Expt # 22

Tube #

Coulter Count

(100 μ l cells) MS = 50

02/13/98

1

578, 4548, 552

2

579, 551, 585

3

641, 624, 654

4

591, 586, 591

5

536, 550, 533

6

585, 588, 550

7

483, 469, 487

8

609, 604, 617

9

590, 582, 550

10

558, 581, 544

Tube No. (Colusion)	Colony Count	Avg	02/13/98
1.2	137, 125, 129	118 } 130.33	124.18
2.2	129, 134, 129	130.66	
4.2	117, 118, 127	118 120	
3.2	116, 128, 127	123	
6.2	107, 102, 105	104.66	
5.2	111, 107, 113	110.33	
7.2	102, 102, 101	101.66	
8.2	64, 52, 58	58	
9.2	25, 28, 30	27.66	
10.2	110, 128, 118	118	

198

4-16

2/13/98

Tube #

Expt # 2.3

Medium Count (cpm)

5-30 p.m.

1	3, 3, -1
2	2, 1, 0
3	1012, 1069, 1039
4	2068, 2181, 2099
5	2942, 3062, 3146
6	1, 0, 1
7	0, 0, 1
8	1012, 1167, 1043
9	1911, 2192, 2039
10	2803, 2714, 3015

Expt # 2.2

Tube #

Cpm for 300 ml cell

6-15 p.m.

1	2, 0, 1
2	1, 1, 0
3	5239, 5328, 5206
4	9748, 9272, 9875
5	15500, 15674, 15812
6	3, 0, 2
7	2, 2, 1
8	5040, 5069, 5117
9	10930, 10855, 10802
10	14349, 14157, 13695

Expt # 2.3

02/16/98

Tube #	Counter Count (100 μ l cells)
1	616, 658, 615
2	632, 638, 606
3	581, 590, 620
4	548, 536, 517
5	509, 525, 496
6	519, 528, 514
7	455, 498, 444
8	506, 520, 531
9	537, 545, 558
10	577, 572, 542

Tube #	cpm for 300 μ l cells 4- 0 p.m.
1	0, 4, 2
2	2, 4, 1
3	5796, 5959, 5627
4	9639, 9700, 10013
5	16160, 16869, 16707
6	2, 1, 0
7	2, 1, 1
8	6666, 6564, 6693
9	12008, 12215, 11919
10	18130, 19154, 19048

10

02/16/98

7797, 7666, 7671

7711

$$7711 \times 400 = 3084533.333$$

$$1.42 \text{ ml Cells} + 9.57 \text{ ml MEMB} = 11 \text{ ml}$$

1076, 993, 1008,

10 p.m.

$$11 \text{ ml of } 100 \mu\text{g/ml} = 1100 \mu\text{g} = 1.1 \text{ mg} \\ = 0.0011 \text{ g}$$

Stock 200 mg/ml

$$200 \text{ mg} = 1 \text{ ml}$$

$$1 \text{ mg} = \frac{1}{200}$$

$$1.1 \text{ mg} = \frac{1.1}{200} = 5.5 \text{ ul}$$

Take 5.5 ul stock 200 mg/ml MEA + 10.99 ml MEMB

02/17/93

Expt # 4

11-30 a.m.

Tube #	Medium Count for 10ul (cpm)
1	2, 0, 1
2	0, 0, 1
3	443, 481, 417
4	821, 812, 926
5	1342, 1381, 1281 1328
6	2, 2, 1
7	3, 2, 1
8	419, 349 ⁴⁵¹ , 405
9	857, 916, 895
10	1309, 1094 , 1385, 1373

02/20

04/19/98

902

Tube 1-30 Media Count Expt 1 (MEA)

Tube 31-56 Media 4 Expt 1 (CD)

Tube 57-86 Cell Count Expt 1 (MEA)

Tube 87-97 Wipe test

Effi = 50.52

Yield = 1.47

Irradiation of V-79 cells \bar{u} ^{137}Cs

05/11/98
Attenuator

Tube #	Total Dose	Dose rate	Time	Attenuator
1.	0 rad	0	0	0
2.	0 rad	0	0	0
✓ 3	100 rad	101.4 R/min	0.98 100 min	X-10
✓ 4	200 rad	101.4 R/min	1.97 100 min	X-10
✓ 5	300 rad	101.4 R/min	2.95 min	X-10
✓ 6	400 rad	101.4 R/min	3.94 min	X-10
✓ 7	500 rad	101.4 R/min	4.93 min	X-10
✓ 8	750 rad	169.6 R/min	4.42 min	X-5
✓ 9	1000 rad	169.6 R/min	5.89 min	X-5
✓ 10	1250 rad	169.6 R/min	7.37 min	X-5

* uniform dose Height from turntable 4.6" - 9.4"
wide - uniform at any radius

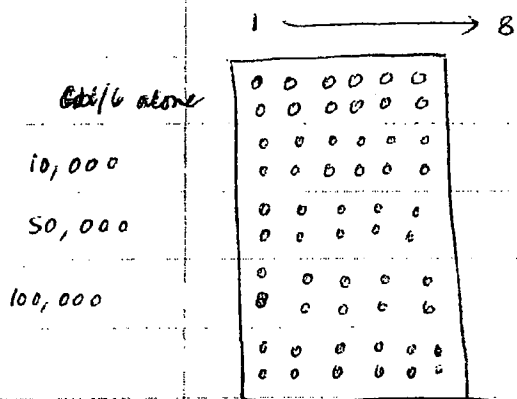
** 4.2" - 9.8", at any radius

237.8 R/min 2" - 8"
3.4" radius from center

4547

10,000 cells/0.2 ml in each well

Total # of wells = 15



05/29/98

Falcon

2x 150 cm² ABI/G 70-80% confluence

Suspend in 248 ml

Cell count = 912, 909, 886

Avg = 902.3

Cell conc = 902.3 x 400

= 360933.3 cells/ml

Total volume = 20 ml

Total # of cells from 2 flasks = 7218666 cells

cells/flask = 3,609,333

= 3.6 million

06/18/98

4x 150 cm² flask, ABI/G

80% confluent

Total volume = 32 ml

Cell count = 1233, 1257, 1166

Cell conc. = 487466 cells/ml

Total # of cells from 4 flasks = 15,598,933

= 15.59 million

cells/flask = 3,899,733

= 3.8 million

4-30 pm

6/19/98

1

2

3

4

5

6

7

8

9

10

0

1938, 1977, 2002

2145, 2140, 2030

2183, 2114, 2002

1998, 1942, 1995

1854, 1907, 1822

pm
28

Irradiation of 96-well plate E ABI/6
0-004 Dose rate Time

6/24/98
AH

Marked
unmarked
B/head
aB/head
B/Body
a/Body

Total Dose	Dose rate	Time	AH
0	0		
100 R	101.4 R/min	0.98 min	X-10
200 R	101.4 R/min	1.97 min	X-10
400 R	101.4 R/min	3.94 min	X-10
600 R	101.4 R/min	5.91 min	X-10

Falcon

GM/6; 7 days following 1:5 subculturing; 80% confluent

MS = 500 μ l

6/25/98

count vol. = 100 μ l

Cell count = 1469, 1502, 1443

Cell = 588533 Cells/ml

Total volume = 10ml

Total # of cells from two 150 cm² flask

= 5885333

Cells/flask = 2,942,666

= 2.94 million

07/02/98

GBL/6 ; 7 days following 1:5 subculturing ; 80-85% confluent.

MS = 500 ml

Total volume =

Cell count = 3617, 3499, 3515

Cell conc = 1,417,466 cells/ml

Total volume = 11 ml

Total # of cells from 5x150 cm² flask

= 15,592,133

Cells/flask = 3,118,426 Cells/flask

= 3.1 million

DMSO = 100%

$$S_1 V_1 = S_2 V_2$$

$$100 \times V_1 = 5 \times 1$$

$$V_1 = \frac{5}{100} = 0.05 \text{ ml} = 50 \mu\text{l}$$

$$\begin{aligned} 100 \times V_1 &= 5 \\ 100 \times 50 &= 5 \end{aligned}$$

- ① Take 10 x 2ml Oxyo vial.
- ② Take ~~0.25~~ 0.25 ml of cell suspension in each
- ③ Add ~~50~~ 50 μl of 100% DMSO, vortex, place on ice.
- ④ Transfer to -70°C

v79

01/02/98

Initial cell count = 7263, 7372, 7301

Cell conc. > 2924800 cells/ml

Total volume = 10ml

Total # of cells/flask = 29,248,000

= 29 million

$$\text{Vol required} = \frac{4400000}{29248000} = 1.5 \text{ ml}$$

Take 1.5ml cell + 9.5ml MEMB \approx 11ml

$$\begin{aligned} \text{Final count} &= \overline{1239, 1193, 1117, 1117} \\ &= 4,64266 \text{ cells/ml} \end{aligned}$$

GM-CSF

0.408 ml contains 1200 U
= - 2941 U/ml

Previous Lot #	5000 units / μ g 25000 unit / 5 μ g	proliferation EC50
ml =	$25000 \div 2941 = \sim 8.5$	

Present Lot #	3570 unit / μ g = 17850 unit / 5 μ g	
ml =	$17850 \div 2941 = \sim 6.0$	

07/21/98

1.

L- Asparagine

Stock 50 mg.

Add Inject 10ml of sterile water into a vial containing 50mg (50mg/10ml or 5mg/ml or 5mg/ml)

2.

Dextran: 1mg/ml or 1mg/ml

Prepare: 10ml

Weight: 10mg

Add 10ml sterile water

3.

NaHCO_3 : weight 3.7 g.

07/23/98

Prepare 65 ml of 50,000 cells/ml GBC/6
= 3,250,000 Cells

$$\text{Vol. of Cell Suspension required} = \frac{3,250,000}{55,333.3}$$
$$= 5.87$$

Initial count = 151, 126, 135, 129

$$\text{Cell conc} = 138.33 \times 4000$$
$$= 553,333.3 \text{ cells/ml}$$

Take ~6 ml conc + 59 ml DMEM = 65 ml.

Final count = 172, 185, 161, 191

$$\text{Avg} = 179$$

$$\text{Cell conc} = 179 \times 400$$
$$= 71,733 \text{ cells/ml}$$

CAFC Array

07/29/98

Collection of bone marrow cells

Cell Type	Counter count for 1ml	Cell conc (cells/ml)	Total # of cells (x 2)	Cells/femur
C57	3329, 3257, 3268	13138666	26277333	4379555
SW	3121 3245 , 3243, ³²¹⁴ 3121	12770666	25541333	4,256,888

$$\begin{aligned} \text{Max \# of cells/well (0.2 ml)} &= \frac{1}{10} \times 4379555 \\ &= 437955.5 \end{aligned}$$

Dil. #

400,000

200,000

100,000

50,000

25,000

12,500

100ul, 50ul

C57 2696, 2537, 2605

SW 2401, 2454, 2514, 2437

C57

①

we need 10 ml of 400,000 cells/ml
= 4,000,000 cells.

$$\text{vol required} = \frac{4000,000}{13138666} = 0.30 \text{ ml}$$

Take 9.7 ml Fisher + 0.3 ml cells = 10 ml

3 ml Fisher's + 3 ml ①

②

3 ml " + " ②

③

3 ml " + " ③

④

3 ml " + " ④

⑤

3 ml " + " ⑤

⑥

SG

$$\text{① vol. required} = \frac{4000,000}{12770666} = 0.31 \text{ ml}$$

Cell Type	Coulter count for 100ml (MS = 50ml)	Cell conc (cells/ml)	Total # of cell	cells/gene
CS7	2646, 2537, 2605	10384000	20768000	3,461,333
SW	2401, 2454, 2437	9722666	19445333	3,240,888

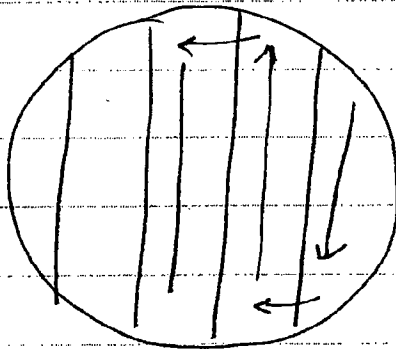
① Max # of cells = $\frac{1}{10} \times \frac{3461333}{3,000,000}$
= 346133

- ① 300,000
- ② 150,000
- ③ 75,000
- ④ 37,500
- ⑤ 18,750
- ⑥ 9,375

10 ml of 300,000 cells/ml
= 3,000,000 cells

C57 vol. required = $\frac{3,000,000}{10,384,000} = 0.28 \text{ ml}$

SW " " = $\frac{300,000}{9,722,666} = 0.30$



1/2 fem

,333

0888

GM Colony Count

8/4/98

Dilution	# of Colonies		
1,000,000	3A 31, 43, 50	41.33	
300,000	3B 15, 27, 7	14.33 8.33	20 0.11
	3C 4, 3, 2	3	

2B	23, 21, 27	23.6	0.33
2C	7, 8, 5	6.66	

1A	187, 192, 179	186	
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1B	<table border="1"> <tr> <td>Dennis</td> <td>Anupam</td> <td>Rajiv</td> </tr> <tr> <td>82</td> <td>82</td> <td>74</td> </tr> </table>	Dennis	Anupam	Rajiv	82	82	74	70.66	
Dennis	Anupam	Rajiv							
82	82	74							
	82, 96, 74								

1C	10, 12, 15	12.33	
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82

186

77.8 0.41

41.33 0.22

8/10/98

Prepare 1X DMEM + 2% horse serum

$$1X \text{ DMEM} = 410 \text{ ml}$$

$$\text{Horse Serum} = x \text{ ml}$$

$$\frac{x}{410+x} = \frac{\cancel{60}}{\cancel{120}} \frac{2}{100}$$

$$w \quad 100x = \cancel{410 \times 60} + \cancel{60x} \quad 820 + 2x$$

$$w \quad \cancel{40x} = \cancel{410 \times 60}$$

$$w \quad x = \frac{\cancel{410 \times 60}}{40}$$

$$w \quad 98x = 820$$

$$w \quad x = 8.36 \text{ ml}$$

Take 410 ml 1X DMEM

Add 8.5 ml Horse Serum

Countdown Count for 20ml Cells

10/14/98

1 3830, 3833, 3740

2 5729, 5546, 5881, 5876

3 2568, 2444

4 5224, 5239, 5053

5 3412, 3363, 3379

6 3116, 3086, 3028

Main menu → goto windows → enter

MS DOS Executive → goto 5100

goto → MCA.EXE → OK

Display - Expansion

E-cal → ON

Menu, collect start

Enter

menu, compute, area, 3X back gr

enter
