Lab Notebook 2024

Callum Malcolm

Contents

LN Repository Rack 1	9
January 2024	Ę
February 2024	5
March 2024	Ę
Monday 24-03-2024 MR - CD20 Flow EpiDrug Pretreatment	בים נות נות בין
Tuesday 25-03-2024 RTX EC50_250324 RBL2 - Seeding Plate seeding protocol: RBL2 RTX DP - Dose 1 Dosing Protocol Plate Layout RBL2 RTX DP - Sample Collection Baseline Collection Protocol	5 5 6 7 8
Thursday 27-03-2024 EC50_250325 Collection - RBL2 RTX CDC Baseline	8 8
Friday 28-03-2024 RAMOS-RTXDP SplitSeq: Qubit	6
	9 9 10 11
Tuesday 01-04-2024	11 11

	12
Dosing Protocol	
Tate Dayout	10
Wednesday 02-04-2024	14
Media Prep	14
Advanced RPMI for PDX	14
EC50_250331 Collection - RBL2 RTX CDC Baseline	14
Results:	14
RTX EC50_250402 RBL2 - Seeding	15
Plate seeding protocol:	15
Thursday 03-04-2024	16
RBL2 RTX DP - Dose 1 Collection	16
Collection Protocol: RTX Treated	16
EC50_250401 Collection - RBL2 RTX CDC Baseline	16
Results:	17
Friday 04-04-2024	17
RBL2 RTX DP - Dose 1 Culture	17
RBL2 RTX-Treated	17
RBL2 Control	17 17
Results:	18
Results	10
Monday 07-04-2024	18
RBL2 RTX DP - Dose 1 Culture	18
RBL2 Baseline	18
RBL2 RTX-Treated	18
RBL2 Control	18
RTX EC50_250407 RBL2 - Seeding	18
Plate seeding protocol:	19
Tuesday 08-04-2024	20
Cell Culture	20
RBL2 Baseline	20
RBL2 RTX-Treated	20
RBL2 Control	20
1,522 (310101	20
Wednesday 09-04-2024	20
EC50_250407 Collection - RBL2 RTX CDC Baseline	20

LN Repository

Rack 1

• Location: Tank 2, Rack 1, Row H (Bottom)

Location	Cap ID	Description	Date
1	Grey	Empty - Marker	-
2	Ramos BC 1	Ramos RTX CDC Baseline	12/06/2024
3	Ramos BC 1	Ramos RTX CDC Baseline	12/06/2024
4	Ramos BC 1	Ramos RTX CDC Baseline	12/06/2024
5	C4 DP2	Ramos RTX CDC C4-DP2	-
6	C5 DP2	Ramos RTX CDC C5-DP2	-
7	C1 DP2	Ramos RTX CDC C1-DP2	-
8	R3 DP2	Ramos RTX CDC R3-DP2	-
9	C6 DP2	Ramos RTX CDC C6-DP2	-
10	C3 DP2	Ramos RTX CDC C3-DP2	_
11	C2 DP2	Ramos RTX CDC C2-DP2	-
12	-	-	-
13	-	-	-
14	_	-	_
15	-	-	_
16	-	-	_
17	-	-	_
18	_	-	_
19	_	-	_
20	_	-	_
21	_	-	_
22	_	-	_
23	_	-	_
24	_	_	_
25	_	_	_
26	_	_	_
27	_	-	_
28	_	_	_
29	_	_	_
30	_	-	_
31	Ramos BC 1	Ramos Barcode Pool 1	12/06/2024
32	Ramos BC 1	Ramos Barcode Pool 1	04/01/2023
33	Ramos BC 1	Ramos Barcode Pool 1 *	16/07/2024
34	Ramos BC 3	Ramos Barcode Pool 3	12/06/2024
35	Ramos BC 3	Ramos Barcode Pool 3	04/06/2024
36	Ramos BC 3	Ramos Barcode Pool 3	12/06/2024
37	Ramos BC 5	Ramos BC Pool 5	12/06/2024
38	Ramos BC 5	Ramos Barcode Pool 5	04/16/2024
39	Ramos BC 6	Ramos Barcode Pool 6	04/16/2024
40	-	-	-
41	_	_	_
42	_	-	_
43	_	-	_
44	_	_	_
45	_	-	_
46	_	_	_
47	_	_	_
71			

Location	Cap ID	Description	Date
48	-	-	-
49	-	-	-
50	-	-	-
51	RBL1	RBL1 PDX	31/07/2023
52	RBL1	RBL1 PDX	31/07/2024
53	RBL1 PDX	RBL1 PDX	31/07/2024
54	BLLW	BLLW PDX Pool	31/07/2024
55	BLLW	BLLW PDX Pool	31/07/2024
56	N4	N4 PDX pool	07/11/2023
57	N4	N4 PDX pool	07/11/2023
58	N2 BC	N2 Barcoded pool	11/05/2023
59	N2 BC 5	N2 barcode pool 5	29/04/2024
60	A20	A20 Cell Pool	13/10/2024
61	A20	A20 Stock	13/10/2024
62	-	-	-
63	-	-	-
64	-	-	-
65	-	-	-
66	-	-	-
67	-	-	-
68	-	-	-
69	-	-	-
70	-	-	-
71	-	-	-
72 73	-	-	-
73 74	-	-	-
75 75	_	_	_
76	_		
77	_	_	_
78	_	_	_
79	_	-	_
80	_	-	-
81	_	-	-
82	_	-	-
83	-	-	-
84	-	-	-
85	-	-	-
86	-	-	-
87	-	-	-
88	-	-	-
89	-	-	-
90	-	-	-
91	NA	NA	NA
92	NA	NA	NA
93	NA	NA	NA
94	A20 ME	B-IP-724-1L	-
95 oc	A20 ME	B-IP-723 NM	-
96	A20 ME	B-IP-723-2L	_
97	A20 ME $A20 ME$	723-2R	_
98 99	A20 ME $A20 ME$	723-1L 710 NM A 20 Mouse Experiment	-
99	AZU ME	710 NM - A20 Mouse Experiment	-

Location	Cap ID	Description	Date
100	NA	NA	NA

January 2024

February 2024

March 2024

Monday 24-03-2024

MR - CD20 Flow EpiDrug Pretreatment

Protocol

- 1. 1x10e6 cells from each treatment group were split into 3 wells of a 96-well plate
- 2. Plate spun at 300xg 5 min and supernatant discarded
- 3. Cells were resusped in FACS Staining buffer
- 1ul CD20 (BD Cat# 562873) per 250uL
- 12 uL in 3000uL
- 4. Plate inbuated in the dark for 20min at 4C
- 5. Plate spun at 300xg 5 min and supernatant discarded
- 6. Samples were resuspended in 400uL PBS and transferred to FACS tubes

Results

• No clear alteration of CD20 expression due to Epigenetic drug pretreatment

Tuesday 25-03-2024

RTX $EC50_250324$ RBL2 - Seeding

- \bullet Seeded an EC50 experiment comparing the effects of RTX on Baseline RBL2 in the presence of 25% NHS
- Seeded 1 plates with the same RBL2 Baseline population
- Used Rixathon (Catalogue#:)

Plate seeding protocol:

1. Diluted cell suspension to seed 10000 cells/well in $50\mu L$ amounts

						Stock	Media
	Cell		Required	Required		Volume	Volume
Plate	Line	Cell Count	Cell total	Volume total	CS cells/mL	(uL)	(mL)
Plate	RBL2	5.65×10^{5}	7.00×10^{5}	3.5	1.61×10^{5}	1238.9	2.2611
1							

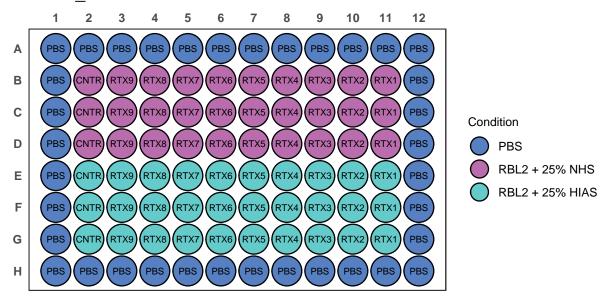
- 2. Made RTX dilutions and added to respective wells in $25\mu L$
 - [RTX stock] = 10.3 mg/mL
 - Drug volumes are added in triplicate
 - Drug volumes are being added consititute 1/4 of well volume:

- [RTX working] needs to be 4x [RTX well]
 - 6 wells per condition, $25\mu L$ per well ~ minimum of $150\mu L$ per condition needed (recommend $200\mu L$)

Dilution ID	Well [RTX] (µg/mL)	RTX Source	Source Volume (μL)	Media Volume (μL)	Working Stock [RTX] $(\mu g/mL)$
RTX 1	20.0	Stock	4.650000000000000004	595.4	79.8
RTX 2	10.0	RTX 1	300	300.0	39.9
RTX 3	5.0	RTX 2	300	300.0	20.0
RTX 4	2.5	RTX 3	300	300.0	10.0
RTX 5	1.2	RTX 4	300	300.0	5.0
RTX 6	0.6	RTX 5	300	300.0	2.5
RTX 7	0.3	RTX 6	300	300.0	1.2
RTX 8	0.2	RTX 7	300	300.0	0.6
RTX 9	0.1	RTX 8	300	600.0	0.3
CNTR	0.0	-	-	1000.0	0.0

- 3. Added HIAS/NHS to indicated wells
- $25\mu L/well$
- Final well volume = 25% Serum (HIAS/NHS)
- 4. Plate is incubated for 48 hrs at 37C

EC50_250324 CDC Test RBL2



RBL2 RTX DP - Dose 1

- Began RTX CDC In Vitro dosing
- Seeded RBL2 into 2x 6 well plates

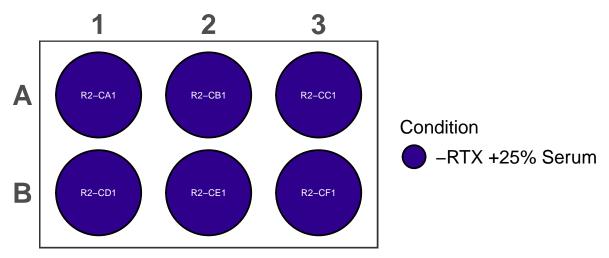
Dosing Protocol

- 1. Count CS and dilute to $2x10^5$ cells in 1 mL
- If cell count is below either re-culture or add required CS amount, spin down, and resuspend in 1mL
- 2. Add 1mL of cell suspension containing $2x10^5$ cells to respective wells of 6-well plate

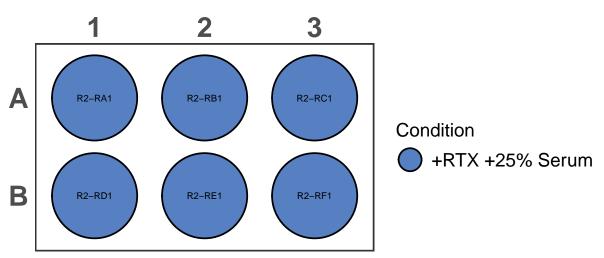
- 3. Made RTX dilutions and added to respective Rx wells in 500μ L
 - [RTX stock] = 10.3 mg/mL
 - Drug volumes are being added consititute 1/4 of well volume:
 - [RTX working] needs to be 4x [RTX well]
 - 6 wells per RTX dosing, 500μ L per well ~ minimum of 3000μ L per condition needed (recommend 3500μ L)
 - $\bullet~1.4~\mathrm{uL}$ RTX stock in $3.5\mathrm{mL}$ media
 - 500μ L media added to Cx wells
- 4. Added NHS to all wells
- $500\mu L/well$
- Final well volume = 25% Serum (NHS)
- 4. Plates incubated for 24 hrs at 37C

Plate Layout

RBL2 RTX DP1 Control 250325



RBL2 RTX DP1 RR-RBL2 250325



RBL2 RTX DP - Sample Collection Baseline

Collection Protocol

- 1. 1×10^6 cells added to eppendorf tubes
- 2. Spun down @ max speed @ 4C
- 3. Supernatant removed
- 4. Pellets flash frozen
- 5. Pellets saved at -80C

Thursday 27-03-2024

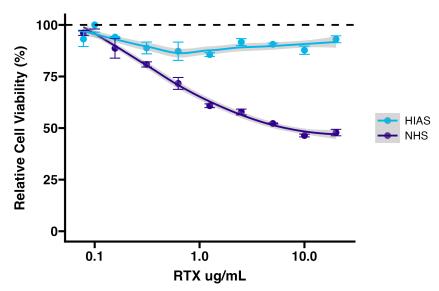
EC50_250325 Collection - RBL2 RTX CDC Baseline

- Collected plates seeded on 25-03-2025
- EC Plate collection protocol:
 - 1. Added 20μ L Cell Titre Blue (CTB) to each conditioned well
 - $-20\mu L CTB/100\mu L$ of conditioned well recommended by manufacturer
 - 2. Incubated for 2hr at 37C
 - 3. Read on plate reader according to Cell Titre Blue Protocol

Results:

- HIAS impact on RBL2 CDC similar to RAMOS experiments
- NHS impact on RTX CDC is consistent with previous experiments
 - Cell viability was only reduced to 50%
 - Will repeat with higher doses of RTX (100ug/ml) and more careful cell counting

RBL2 Baseline RTX +/- Serum



RBL2 RTX DP - Dose 1 Collection

Collection Protocol

- 1. Well volume transferred to 15ml Eppendorf
- 2. Eppendorfs supn down at 200 rcf for 6 min
- 3. Supernatant discarded and resuspended in 2ml

4. Collected cells added to individual wells of 6-well plates

Friday 28-03-2024

RAMOS-RTXDP SplitSeq: Qubit

• Needed to resumbit library due to low concentration

SS Qubit Results

Sample ID	DNA ng/uL	DNA nM
1	20.4	30.9
2	20.8	31.5
3	6.9	10.4
4	24.4	37.0
5	21.0	31.8
6	12.4	18.8
7	19.4	29.4
8	12.3	18.6

• CRUK-CI Genomics core tends to ask for 30-40uL of 10-20nM Library Pool

Monday 31-03-2024

RAMOS-RTXDP SplitSeq: Library Pooling and Submission

- Library Pooled for submission
- Submission ID: SLX-24264

Library Concentration (ng/μl)	Library Concentration (nM)	Library Volume (μl)	10 mM Tris-HCl, pH 8.5 (μl)	Pooling Volume (μl)
Library 1	30.9	10.3	2.2	4.9
Library 2	31.5	9.9	2.6	5.0
Library 3	10.6	0.0	0.0	11.8
Library 4	37.0	8.5	4.0	5.0
Library 5	31.8	9.8	2.7	5.0
Library 6	18.8	0.0	0.0	6.6
Library 7	29.4	10.6	1.9	5.0
Library 8	18.6	0.0	0.0	6.7

Total Pool Volume	Total Pool Concentration (ng/uL)
50	12.5

RTX $EC50_250331$ RBL2 - Seeding

- Seeded an EC50 experiment comparing the effects of RTX on Baseline RBL2 in the presence of 25% NHS
- Seeded 1 plates with the RBL2 Baseline population
- Used Rixathon (Catalogue#:)

Plate seeding protocol:

1. Diluted cell suspension to seed 10000 cells/well in 50μ L amounts

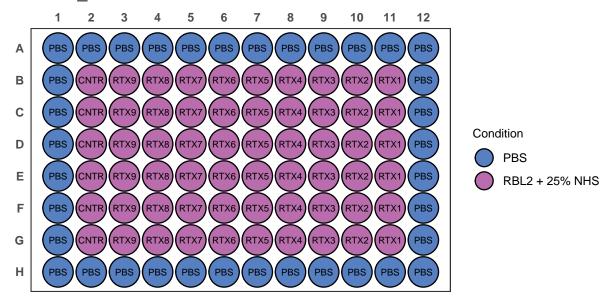
						Stock	Media
	Cell		Required	Required		Volume	Volume
Plate	Line	Cell Count	Cell total	Volume total	CS cells/mL	(uL)	(mL)
Plate 1	RBL2	1.26×10^{6}	7.00×10^{5}	3.5	3.60×10^{5}	555.5	2.9445

- 2. Made RTX dilutions and added to respective wells in $25\mu L$
 - [RTX stock] = 10.3 mg/mL
 - Drug volumes are added in triplicate
 - Drug volumes are being added consititute 1/4 of well volume:
 - [RTX working] needs to be 4x [RTX well]
 - 6 wells per condition, $25\mu L$ per well \sim minimum of $150\mu L$ per condition needed (recommend $200\mu L)$

Dilution ID	Well [RTX] (µg/mL)	RTX Source	Source Volume (μL)	Media Volume (μL)	Working Stock [RTX] $(\mu g/mL)$
RTX 1	100.0	Stock	23.3	576.6	400.1
RTX 2	50.0	RTX 1	299.95	300.0	200.0
RTX 3	25.0	RTX 2	299.95	300.0	100.0
RTX 4	12.5	RTX 3	299.95	300.0	50.0
RTX 5	6.3	RTX 4	299.95	300.0	25.0
RTX 6	3.1	RTX 5	299.95	300.0	12.5
RTX 7	1.6	RTX 6	299.95	300.0	6.3
RTX 8	0.8	RTX 7	299.95	300.0	3.1
RTX 9	0.4	RTX 8	299.95	599.9	1.6
CNTR	0.0	-	-	1000.0	0.0

- 3. Added HIAS/NHS to indicated wells
- $25\mu L/well$
- Final well volume = 25% Serum (HIAS/NHS)
- 4. Plate is incubated for 48 hrs at 37C

EC50 250331 CDC Test RBL2



April 2025

Tuesday 01-04-2024

$RTX EC50_250401 RBL2 - Seeding$

- Seeded an EC50 experiment comparing the effects of RTX on Baseline RBL2 in the presence of 25% NHS
- Seeded 1 plates with the RBL2 Baseline population
- Used Rixathon (Catalogue#:)

Plate seeding protocol:

1. Diluted cell suspension to seed 10000 cells/well in $50\mu L$ amounts

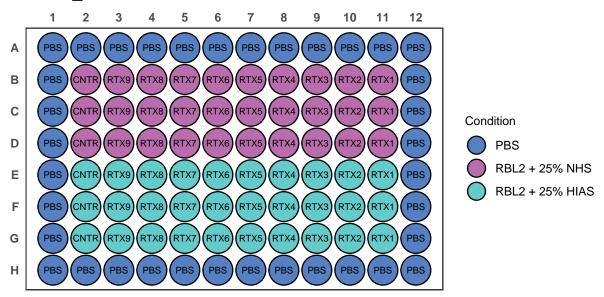
Plate	Cell Line	Cell Count	Required Cell total	Required Volume total	CS cells/mL	Stock Volume (uL)	Media Volume (mL)
Plate 1	RBL2	9.70×10^5	7.00×10^5	3.5	2.77×10^5	721.6	2.7784

- 2. Made RTX dilutions and added to respective wells in $25\mu L$
 - [RTX stock] = 10.3 mg/mL
 - Drug volumes are added in triplicate
 - Drug volumes are being added consititute 1/4 of well volume:
 - [RTX working] needs to be 4x [RTX well]
 - 6 wells per condition, $25\mu L$ per well ~ minimum of $150\mu L$ per condition needed (recommend $200\mu L$)

Dilution	Well [RTX]	RTX	Source Volume	Media Volume	Working Stock [RTX]
ID	$(\mu g/mL)$	Source	(μL)	(μL)	$(\mu g/mL)$
RTX 1	100.0	Stock	23.3	576.6	400.1
RTX 2	50.0	RTX 1	299.95	300.0	200.0
RTX 3	25.0	RTX 2	299.95	300.0	100.0
RTX 4	12.5	RTX 3	299.95	300.0	50.0
RTX 5	6.3	RTX 4	299.95	300.0	25.0
RTX 6	3.1	RTX 5	299.95	300.0	12.5
RTX 7	1.6	RTX 6	299.95	300.0	6.3
RTX 8	0.8	RTX 7	299.95	300.0	3.1
RTX 9	0.4	RTX 8	299.95	599.9	1.6
CNTR	0.0	-	-	1000.0	0.0

- 3. Added HIAS/NHS to indicated wells
- $25\mu L/well$
- Final well volume = 25% Serum (HIAS/NHS)
- 4. Plate is incubated for 48 hrs at 37C

EC50 250331 CDC Test RBL2



RBL2 RTX DP - Dose 1

- Restarted RTX CDC In Vitro dosing
- Concerns with initial seeding/dosing
 - RBL2 appear to be more resistant to RTX dosing
 - Plan is to start with 25ug/mL RTX
 - -25 -> 50 -> 100 -> 200
- Seeded RBL2 into 2x 6 well plates

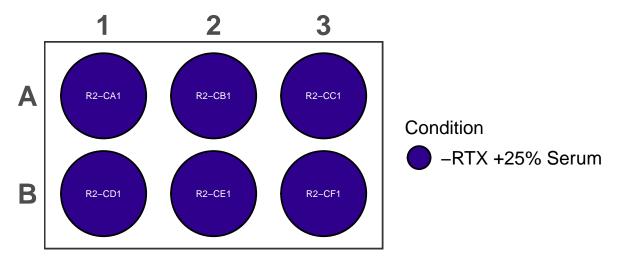
Dosing Protocol

- 1. Count CS and dilute to $5x10^5$ cells in 1 mL
- If cell count is below either re-culture or add required CS amount, spin down, and resuspend in 1mL
- 2. Add 1mL of cell suspension containing 5×10^5 cells to respective wells of 6-well plate

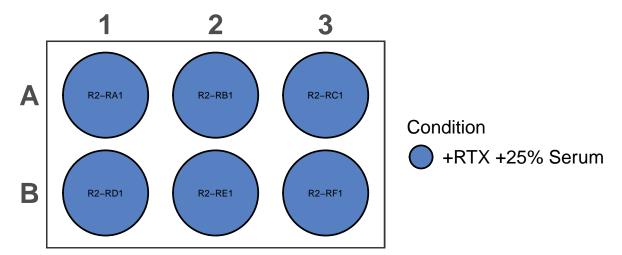
- 3. Made RTX dilutions and added to respective Rx wells in $500\mu L$
 - [RTX stock] = 10.3 mg/mL
 - Drug volumes are being added consititute 1/4 of well volume:
 - [RTX working] needs to be 4x [RTX well]
 - 6 wells per RTX dosing, $500\mu L$ per well ~ minimum of $3000\mu L$ per condition needed (recommend $3500\mu L$)
 - 25ug/mL [RTX]
 - $-34\mu L$ RTX stock in 3.5mL media
 - -100 ug/mL WS
 - 500μ L media added to Cx wells
- 4. Added NHS to all wells
- $500\mu L/well$
- Final well volume = 25% Serum (NHS)
- 4. Plates incubated for 24 hrs at 37C

Plate Layout

RBL2 RTX DP1 Control 250401



RBL2 RTX DP1 RR-RBL2 250401



Wednesday 02-04-2024

Media Prep

Advanced RPMI for PDX

• 20% FBS #### Recipe

Solution	ID code	Volume	% Total volume
Advanced RMPI		$500~\mathrm{mL}$	78%
Glutamax		$6.5~\mathrm{mL}$	20%
Pen-Strep		$6.5~\mathrm{mL}$	1%
FBS		$128~\mathrm{mL}$	20%

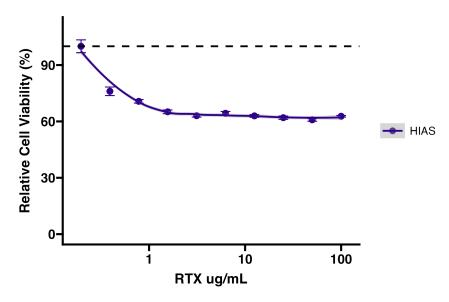
EC50_250331 Collection - RBL2 RTX CDC Baseline

- Collected plates seeded on 25-03-2025
- EC Plate collection protocol:
 - 1. Added $20\mu\mathrm{L}$ Cell Titre Blue (CTB) to each conditioned well
 - $20\mu L$ CTB/100 μL of conditioned well recommended by manufacturer
 - 2. Incubated for 2hr at 37C
 - 3. Read on plate reader according to Cell Titre Blue Protocol

Results:

- Forgot to seed HIAS
- $\bullet~$ NHS impact on RTX CDC is consistent with previous experiments
 - Cell viability still wasnt reduced below 50%
 - Will repeat with higher doses of RTX (1000ug/ml) and increased cell/well amount (4x10⁵)

RBL2 Baseline RTX +/- Serum



RTX $EC50_250402$ RBL2 - Seeding

- Seeded an EC50 experiment comparing the effects of RTX on Baseline RBL2 in the presence of 25% NHS
- Seeded 1 plates with the RBL2 Baseline population
- Used Rixathon (Catalogue#:)

Plate seeding protocol:

1. Diluted cell suspension to seed 40000 cells/well in $50\mu L$ amounts

						Stock	Media
	Cell		Required	Required		Volume	Volume
Plate	Line	Cell Count	Cell total	Volume total	CS cells/mL	(uL)	(mL)
Plate	RBL2	9.70×10^{5}	7.00×10^{5}	3.5	2.77×10^{5}	721.6	2.7784
1							

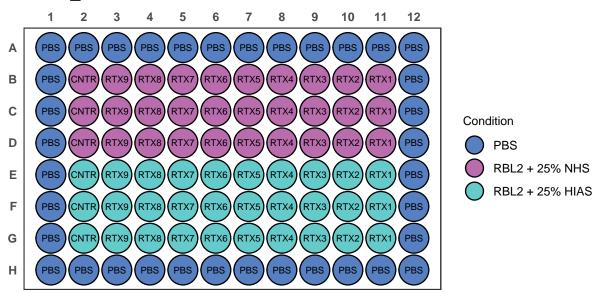
- 2. Made RTX dilutions and added to respective wells in $25\mu L$
 - [RTX stock] = 10.3 mg/mL
 - Drug volumes are added in triplicate
 - Drug volumes are being added consititute 1/4 of well volume:
 - [RTX working] needs to be 4x [RTX well]
 - 6 wells per condition, $25\mu L$ per well \sim minimum of $150\mu L$ per condition needed (recommend $200\mu L)$

Dilution ID	Well [RTX] (µg/mL)	RTX Source	Source Volume (µL)	Media Volume (μL)	Working Stock [RTX] (µg/mL)
RTX 1	100.0	Stock	23.3	576.6	400.1
RTX 2	50.0	RTX 1	299.95	300.0	200.0
RTX 3	25.0	RTX 2	299.95	300.0	100.0
RTX 4	12.5	RTX 3	299.95	300.0	50.0
RTX 5	6.3	RTX 4	299.95	300.0	25.0

Dilution ID	Well [RTX] (µg/mL)	RTX Source	Source Volume (μL)	$\begin{array}{c} {\rm Media\ Volume} \\ {\rm (\mu L)} \end{array}$	Working Stock [RTX] $(\mu g/mL)$
RTX 6	3.1	RTX 5	299.95	300.0	12.5
RTX 7	1.6	RTX 6	299.95	300.0	6.3
RTX 8	0.8	RTX 7	299.95	300.0	3.1
RTX 9	0.4	RTX 8	299.95	599.9	1.6
CNTR	0.0	-	-	1000.0	0.0

- 3. Added HIAS/NHS to indicated wells
- $25\mu L/well$
- Final well volume = 25% Serum (HIAS/NHS)
- 4. Plate is incubated for 48 hrs at 37C

EC50_250331 CDC Test RBL2



Thursday 03-04-2024

RBL2 RTX DP - Dose 1 Collection

Collection Protocol: RTX Treated

- 1. Well volume transferred to 15ml Eppendorf
- 2. Eppendorfs supn down at 200 rcf for 6 min
- 3. Supernatant discarded and resuspended in 1ml
- 4. Collected RTX-treated cells added to individual wells of 24-well plates
- Control wells expanded to T25s in 4ml media

EC50_250401 Collection - RBL2 RTX CDC Baseline

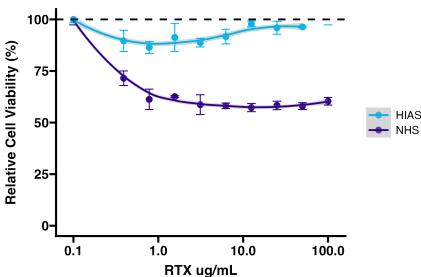
- Collected plates seeded on 25-03-2025
- EC Plate collection protocol:
 - 1. Added 20µL Cell Titre Blue (CTB) to each conditioned well
 - $20\mu L$ CTB/100 μL of conditioned well recommended by manufacturer
 - 2. Incubated for 2hr at 37C

3. Read on plate reader according to Cell Titre Blue Protocol

Results:

- HIAS Results as expected
 - Need to seed one more as reference
- NHS impact on RTX CDC is consistent with previous experiments
 - Cell viability still wasnt reduced below 50%
 - Will repeat with higher doses of RTX (1000ug/ml) and increased cell/well amount (4x10⁵)





Friday 04-04-2024

RBL2 RTX DP - Dose 1 Culture

RBL2 RTX-Treated

- Expanded to T25
- Transferred 1mL of CS and added 3mL of fresh media
- Cells looked relatively healthy, good growth from yesterday

RBL2 Control

- Spun down and resuspended in 4 ml of media
- Look fine

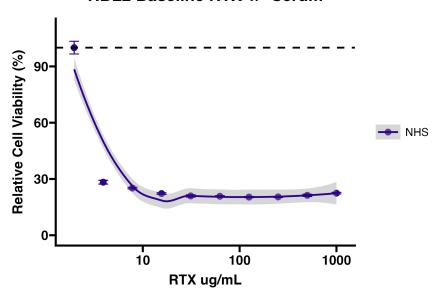
EC50 250402 Collection - RBL2 RTX CDC Baseline

- Collected plates seeded on 02-04-2025
- EC Plate collection protocol:
 - 1. Added $20\mu L$ Cell Titre Blue (CTB) to each conditioned well
 - $-20\mu L \text{ CTB}/100\mu L$ of conditioned well recommended by manufacturer
 - 2. Incubated for $2\mathrm{hr}$ at $37\mathrm{C}$
 - 3. Read on plate reader according to Cell Titre Blue Protocol

Results:

- NHS impact on RTX CDC is wildly different
 - Down to 30% viability at ${\sim}4\mathrm{ug/mL}$
 - Seems like the issue was cell seeding
 - Will repeat 07-04-2025 with 20 ug/mL but $4 \text{x} 10^5$ cells

RBL2 Baseline RTX +/- Serum



Monday 07-04-2024

RBL2 RTX DP - Dose 1 Culture

RBL2 Baseline

- Healthy
- Use for EC50
- Split
- ullet Would like to discontiue the line once we have firmly established optimal dose-response conditions for RTX

RBL2 RTX-Treated

- Cells look rough
- Leave for one more day to see if they're just growing slowly

RBL2 Control

- · Look good
- Expand to T75

RTX $EC50_250407$ RBL2 - Seeding

- \bullet Seeded an EC50 experiment comparing the effects of RTX on Baseline RBL2 in the presence of 25% NHS or 25% HIAS
 - Looking to establish optimal EC50 range
- Seeded 1 plates with the RBL2 Baseline population based on previous results:

- 40k cells per well
- Starting at 100ug/mL dose
- Used Rixathon (Catalogue#:)

Plate seeding protocol:

1. Diluted cell suspension to seed 40000 cells/well in $50\mu L$ amounts

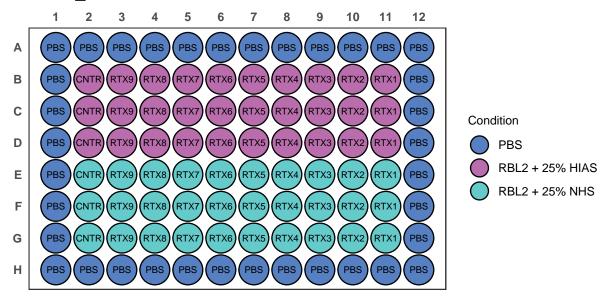
						Stock	Media
	Cell		Required	Required		Volume	Volume
Plate	Line	Cell Count	Cell total	Volume total	CS cells/mL	(uL)	(mL)
Plate	RBL2	1.63×10^{6}	2.80×10^{6}	4	4.08×10^{5}	1717.7	2.2823
1							

- 2. Made RTX dilutions and added to respective wells in $25\mu L$
 - [RTX stock] = 10.3 mg/mL
 - Drug volumes are added in triplicate
 - Drug volumes are being added consititute 1/4 of well volume:
 - [RTX working] needs to be 4x [RTX well]
 - 6 wells per condition, $25\mu L$ per well \sim minimum of $150\mu L$ per condition needed (recommend $200\mu L)$

Dilution	Well [RTX]	RTX	Source Volume	Media Volume	Working Stock [RTX]
ID	$(\mu g/mL)$	Source	(μL)	(μL)	$(\mu g/mL)$
RTX 1	100.0	Stock	19.417475728155338	480.6	400.0
RTX 2	50.0	RTX 1	250	250.0	200.0
RTX 3	25.0	RTX 2	250	250.0	100.0
RTX 4	12.5	RTX 3	250	250.0	50.0
RTX 5	6.2	RTX 4	250	250.0	25.0
RTX 6	3.1	RTX 5	250	250.0	12.5
RTX 7	1.6	RTX 6	250	250.0	6.2
RTX 8	0.8	RTX 7	250	250.0	3.1
RTX 9	0.4	RTX 8	250	500.0	1.6
CNTR	0.0	-	-	1000.0	0.0

- 3. Added HIAS/NHS to indicated wells
- $25\mu L/well$
- Final well volume = 25% Serum (HIAS/NHS)
- 4. Plate is incubated for 48 hrs at 37C

EC50 250407 CDC Test RBL2



Tuesday 08-04-2024

Cell Culture

RBL2 Baseline

- Healthy
- Use for EC50
 - Seed tomorrow based on results
- Split 1/4
- ullet Would like to discontiue the line once we have firmly established optimal dose-response conditions for RTX

RBL2 RTX-Treated

- Cells look rough
- Spun down and resuspend in 12 well plates
- Expanded too quickly

RBL2 Control

- Look good
- Leave for another day

Wednesday 09-04-2024

EC50 250407 Collection - RBL2 RTX CDC Baseline

- Collected plates seeded on 07-04-2025
- EC Plate collection protocol:
 - 1. Added $20\mu L$ Cell Titre Blue (CTB) to each conditioned well
 - $-20\mu L \text{ CTB}/100\mu L$ of conditioned well recommended by manufacturer
 - 2. Incubated for 2hr at 37C
 - 3. Read on plate reader according to Cell Titre Blue Protocol

Results:

 $\bullet\,$ NHS impact on RTX CDC is wildly different

RBL2 Baseline RTX +/- Serum

