##########

GROUP MEASUREMENT CURVES

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L\_PBMC 650k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 50.04 | + | 8.81772661051 |
| Measurement | 2: | 49.33 | + | 8.79864300648 |
| Measurement | 3: | 50.06 | + | 8.79776383273 |
| Measurement | 4: | 28.67 | + | 9.26849851841 |
| Measurement | 5: | 29.19 | + | 9.29435501383 |
| Measurement | 6: | 27.82 | + | 9.28554133631 |
| Measurement | 7: | 219.57 | + | 16.9495611023 |
| Measurement | 8: | 166.11 | + | 15.1207880452 |
| Measurement | 9: | 145.23 | + | 13.2466083503 |
| Measurement | 10: | 25.85 | + | 0.60013575419 |
| Measurement | 11: | 24.82 | + | 0.126461197875 |
| Measurement | 12: | 24.64 | + | 0.501077176043 |

L\_PBMC 700k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 61.28 | + | 6.09495058746 |
| Measurement | 2: | 60.35 | + | 5.96748884888 |
| Measurement | 3: | 62.16 | + | 5.89065041411 |
| Measurement | 4: | 34.13 | + | 5.6664881321 |
| Measurement | 5: | 34.39 | + | 5.7487360896 |
| Measurement | 6: | 33.02 | + | 5.75173539517 |
| Measurement | 7: | 286.64 | + | 19.2922682581 |
| Measurement | 8: | 232.17 | + | 17.16998749 |
| Measurement | 9: | 203.81 | + | 14.5193294577 |
| Measurement | 10: | 29.52 | + | 0.440260204326 |
| Measurement | 11: | 29.33 | + | 0.0763309516886 |
| Measurement | 12: | 29.33 | + | 0.329873812727 |

T2D\_PBMC 700k:

Measurement 1: 97.09 + 1.87048956159

Measurement 2: 95.9 + 1.6068941471

Measurement 3: 98.57 + 1.4352209586

Measurement 4: 46.14 + 1.91543958401

Measurement 5: 44.25 + 1.39488952968

Measurement 6: 43.47 + 1.95289733473

Measurement 7: 207.37 + 17.0939962794

Measurement 8: 208.76 + 13.9482983622

Measurement 9: 240.08 + 11.8951248501

Measurement 10: 37.45 + 0.294572232228

Measurement 11: 38.12 + 0.195726339566

Measurement 12: 37.57 + 0.389292691943

T2D\_T 700k:

Measurement 1: 90.44 + 1.50104286664

Measurement 2: 90.415 + 1.17851866765

Measurement 3: 91.62 + 1.20027080278

Measurement 4: 63.08 + 0.829784422305

Measurement 5: 62.25 + 1.34020987162

Measurement 6: 62.625 + 1.7613506891

Measurement 7: 462.06 + 40.128507226

Measurement 8: 389.43 + 36.8623092357

Measurement 9: 407.925 + 20.3547633783

Measurement 10: 52.85 + 0.106617013183

Measurement 11: 52.98 + 0.258686586432

Measurement 12: 50.88 + 0.570376794321

L\_T 700k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 70.85 | + | 3.06211247344 |
| Measurement | 2: | 72.8 | + | 3.35546050491 |
| Measurement | 3: | 73.15 | + | 3.53321768364 |
| Measurement | 4: | 43.42 | + | 3.372460704 |
| Measurement | 5: | 46.0 | + | 3.01374106386 |
| Measurement | 6: | 48.28 | + | 2.82198880225 |
| Measurement | 7: | 241.73 | + | 17.5449334909 |
| Measurement | 8: | 194.54 | + | 16.3618136892 |
| Measurement | 9: | 175.35 | + | 13.4458783573 |
| Measurement | 10: | 41.14 | + | 0.233827286688 |
| Measurement | 11: | 41.14 | + | 0.161898733781 |
| Measurement | 12: | 40.82 | + | 0.249495490941 |

T2D\_T40 200k:

Measurement 1: 119.28 + 3.27184079495

Measurement 2: 118.39 + 5.05626637822

Measurement 3: 111.45 + 6.93217351828

Measurement 4: 41.125 + 3.43783089317

Measurement 5: 47.235 + 3.56059049702

Measurement 6: 47.735 + 2.69687405852

Measurement 7: 130.36 + 9.80470932766

Measurement 8: 137.12 + 10.7902293766

Measurement 9: 135.0 + 11.444013992

Measurement 10: 29.32 + 0.815056554786

Measurement 11: 28.91 + 1.53845041763

Measurement 12: 26.545 + 0.985643032492

L\_B 562k:

Measurement 1: 49.645 + 4.22496301759

Measurement 2: 48.64 + 4.11536146651

Measurement 3: 49.73 + 4.53255446741

Measurement 4: 25.53 + 3.42239682094

Measurement 5: 25.395 + 1.72887608

Measurement 6: 25.74 + 1.68291413922

Measurement 7: 131.395 + 0.972271824132

Measurement 8: 127.98 + 0.452548339959

Measurement 9: 123.945 + 1.02176929881

Measurement 10: 26.235 + 0.0247487373415

Measurement 11: 26.835 + 0.0106066017178

Measurement 12: 26.935 + 0.0813172798365

T1D\_PBMC 700k:

Measurement 1: 51.535 + 2.25016804928

Measurement 2: 52.6 + 2.46232201133

Measurement 3: 54.62 + 4.07001746771

Measurement 4: 33.39 + 2.12713238598

Measurement 5: 33.895 + 5.7011035116

Measurement 6: 32.905 + 4.31861721938

Measurement 7: 124.39 + 13.5520999295

Measurement 8: 114.775 + 11.4908509122

Measurement 9: 114.1 + 10.1739768374

Measurement 10: 26.235 + 1.09858644972

Measurement 11: 26.21 + 0.108253175473

Measurement 12: 24.645 + 1.17340849665

T2D\_T 511k:

Measurement 1: 49.18 + 5.55664233815

Measurement 2: 48.36 + 5.31931769504

Measurement 3: 48.36 + 5.1621363651

Measurement 4: 23.22 + 1.05604433128

Measurement 5: 24.26 + 0.608501498826

Measurement 6: 25.85 + 0.779990503266

Measurement 7: 140.2 + 46.0656852283

Measurement 8: 136.67 + 35.8482865958

Measurement 9: 125.09 + 34.7371120785

Measurement 10: 19.33 + 0.653197264742

Measurement 11: 19.33 + 0.122050384253

Measurement 12: 20.05 + 0.842060963747

L\_T 600k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 51.69 | + | 3.2173358544 |
| Measurement | 2: | 50.97 | + | 2.10010714012 |
| Measurement | 3: | 52.55 | + | 1.83847763109 |
| Measurement | 4: | 33.975 | + | 4.61387174724 |
| Measurement | 5: | 42.355 | + | 9.8323197924 |
| Measurement | 6: | 36.13 | + | 4.83661038332 |
| Measurement | 7: | 162.165 | + | 13.4739197155 |
| Measurement | 8: | 141.87 | + | 11.4834141265 |
| Measurement | 9: | 136.835 | + | 16.4437681965 |
| Measurement | 10: | 36.105 | + | 1.08540890912 |
| Measurement | 11: | 36.18 | + | 0.0 |
| Measurement | 12: | 35.7 | + | 0.876812408671 |

T2D\_PBMC 637k:

Measurement 1: 85.92 + 2.46073159853

Measurement 2: 85.88 + 3.13955410847

Measurement 3: 86.59 + 3.18198051534

Measurement 4: 41.935 + 2.51376460712

Measurement 5: 40.815 + 3.96333350855

Measurement 6: 39.585 + 3.74413040638

Measurement 7: 174.76 + 6.03162084352

Measurement 8: 135.07 + 3.89615836434

Measurement 9: 122.495 + 2.78246518397

Measurement 10: 24.355 + 0.724784450716

Measurement 11: 25.93 + 0.381837661841

Measurement 12: 24.665 + 0.505581348548

L\_T 400k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 33.15 | + | 1.71723291632 |
| Measurement | 2: | 35.5 | + | 1.0011141941 |
| Measurement | 3: | 36.87 | + | 1.30674602934 |
| Measurement | 4: | 26.88 | + | 1.6758767744 |
| Measurement | 5: | 29.68 | + | 1.71107070659 |
| Measurement | 6: | 30.51 | + | 2.18263347562 |
| Measurement | 7: | 98.8 | + | 8.85342034763 |
| Measurement | 8: | 89.57 | + | 8.57657058287 |
| Measurement | 9: | 80.5 | + | 8.11539415076 |
| Measurement | 10: | 28.78 | + | 1.78605918362 |
| Measurement | 11: | 28.23 | + | 0.122474487139 |
| Measurement | 12: | 26.68 | + | 0.445229861565 |

T1D\_PBMC 610k:

Measurement 1: 54.68 + 10.9235108316

Measurement 2: 56.75 + 10.9994434203

Measurement 3: 58.69 + 11.7766334874

Measurement 4: 34.52 + 8.07779168576

Measurement 5: 36.34 + 5.51490169819

Measurement 6: 36.44 + 4.42523152774

Measurement 7: 166.58 + 27.0204894821

Measurement 8: 138.75 + 4.48584687904

Measurement 9: 130.11 + 2.88170088663

Measurement 10: 26.73 + 0.287608272688

Measurement 11: 29.56 + 0.31149579392

Measurement 12: 28.31 + 0.0

T2D\_T40 (2.0):

Measurement 1: 41.82 + 0.0

Measurement 2: 36.98 + 0.0

Measurement 3: 37.4 + 0.0

Measurement 4: 22.12 + 0.0

Measurement 5: 18.2 + 0.0

Measurement 6: 22.22 + 0.0

Measurement 7: 61.89 + 0.0

Measurement 8: 59.69 + 0.0

Measurement 9: 60.06 + 0.0

Measurement 10: 14.21 + 0.0

Measurement 11: 17.24 + 0.0

Measurement 12: 16.37 + 0.0

L\_T 500k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 33.95 | + | 2.19851633473 |
| Measurement | 2: | 33.95 | + | 2.86454314113 |
| Measurement | 3: | 34.52 | + | 3.16513062161 |
| Measurement | 4: | 13.6 | + | 1.15077107805 |
| Measurement | 5: | 18.0 | + | 1.21921954393 |
| Measurement | 6: | 18.38 | + | 0.822692057955 |
| Measurement | 7: | 127.1 | + | 10.8295340346 |
| Measurement | 8: | 98.43 | + | 10.0221502831 |
| Measurement | 9: | 83.69 | + | 8.91663738313 |
| Measurement | 10: | 12.49 | + | 0.0947902167166 |
| Measurement | 11: | 13.8 | + | 0.480840313833 |
| Measurement | 12: | 12.77 | + | 0.350523418143 |

L\_T 300k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 25.99 | + | 2.39709198822 |
| Measurement | 2: | 26.235 | + | 3.05823682863 |
| Measurement | 3: | 27.825 | + | 3.47542982953 |
| Measurement | 4: | 19.175 | + | 3.18551604925 |
| Measurement | 5: | 20.915 | + | 2.83903372646 |
| Measurement | 6: | 20.875 | + | 2.28749043714 |
| Measurement | 7: | 79.16 | + | 4.5891230099 |
| Measurement | 8: | 66.5 | + | 2.57386868352 |
| Measurement | 9: | 64.035 | + | 0.717713382904 |
| Measurement | 10: | 18.96 | + | 1.18086832458 |
| Measurement | 11: | 19.9 | + | 0.33941125497 |
| Measurement | 12: | 19.335 | + | 0.0601040764009 |

L\_PBMC 400k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 36.12 | + | 0.814902857196 |
| Measurement | 2: | 37.73 | + | 1.39812572952 |
| Measurement | 3: | 36.92 | + | 0.87084037743 |
| Measurement | 4: | 20.45 | + | 0.619372442253 |
| Measurement | 5: | 21.16 | + | 0.360688641762 |
| Measurement | 6: | 20.6 | + | 0.441017342399 |
| Measurement | 7: | 95.4 | + | 3.83709766862 |
| Measurement | 8: | 79.71 | + | 1.23569443664 |
| Measurement | 9: | 68.74 | + | 1.49046599723 |
| Measurement | 10: | 16.25 | + | 1.06321315935 |
| Measurement | 11: | 17.32 | + | 0.068041381744 |
| Measurement | 12: | 17.51 | + | 0.355162977717 |

L\_PBMC 300k:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Measurement | 1: | 24.97 | + | 1.47368774018 |
| Measurement | 2: | 26.49 | + | 0.973770830139 |
| Measurement | 3: | 27.99 | + | 1.06103722838 |
| Measurement | 4: | 18.77 | + | 0.80917424759 |
| Measurement | 5: | 19.99 | + | 0.496275013363 |
| Measurement | 6: | 18.37 | + | 0.989840989849 |
| Measurement | 7: | 60.48 | + | 1.47952945473 |
| Measurement | 8: | 54.07 | + | 1.25721326162 |
| Measurement | 9: | 49.19 | + | 1.26833515842 |
| Measurement | 10: | 13.84 | + | 0.723709579566 |
| Measurement | 11: | 13.15 | + | 0.0163299316186 |
| Measurement | 12: | 12.96 | + | 0.223623360603 |

##########

GROUP RESPIRATION CALCULATIONS

##########

Background

Non-Mitochondrial Respiration = 0 + 0

Basal Respiration = 0.0 + 0.0

OCR:ECAR = 0.0 + 0.0

Proton Leak = 0 + 0.0

ATP Production = 0.0 + 0.0

Maximal Respiration = 0 + 0.0

OCR:ECAR = 0 + 0.0

Spare Respiratory Capacity = 0.0 + 0.0

Unassigned

Non-Mitochondrial Respiration = 0 + 0

Basal Respiration = 0.0 + 0.0

OCR:ECAR = 0.0 + 0.0

Proton Leak = 0 + 0.0

ATP Production = 0.0 + 0.0

Maximal Respiration = 0 + 0.0

OCR:ECAR = 0 + 0.0

Spare Respiratory Capacity = 0.0 + 0.0

L\_PBMC 650k

Non-Mitochondrial Respiration = 24.82 + 0.126461197875

Basal Respiration = 24.875 + 6.22255447847

OCR:ECAR = 2.3054532056 + 0.388889520831

Proton Leak = 3.85 + 9.26936120886

ATP Production = 21.025 + 11.1642841892

Maximal Respiration = 194.75 + 16.9500328611

OCR:ECAR = 3.37781201849 + 0.157477747373

Spare Respiratory Capacity = 169.875 + 18.0561291043

L\_PBMC 700k

Non-Mitochondrial Respiration = 29.33 + 0.0763309516886

Basal Respiration = 31.925 + 4.19326815025

OCR:ECAR = 2.15081363186 + 0.219503664853

Proton Leak = 4.8 + 5.66700222035

ATP Production = 27.125 + 7.04971006108

Maximal Respiration = 257.31 + 19.2924192614

OCR:ECAR = 3.4620501139 + 0.146673894216

Spare Respiratory Capacity = 225.385 + 19.7428705799

T2D\_PBMC 700k

Non-Mitochondrial Respiration = 37.57 + 0.389292691943

Basal Respiration = 59.665 + 1.1454434949

OCR:ECAR = 3.4636272142 + 0.146732794091

Proton Leak = 6.68 + 1.44819390967

ATP Production = 52.985 + 1.84643071898

Maximal Respiration = 202.51 + 11.9014933517

OCR:ECAR = 3.1604499704 + 0.141727654389

Spare Respiratory Capacity = 142.845 + 11.956487143

T2D\_T 700k

Non-Mitochondrial Respiration = 52.85 + 0.106617013183

Basal Respiration = 38.1675 + 0.847794933932

OCR:ECAR = 6.0217233954 + 0.396175518542

Proton Leak = 9.775 + 1.76457457692

ATP Production = 28.3925 + 1.95767200713

Maximal Respiration = 409.21 + 40.1286488606

OCR:ECAR = 4.91441769824 + 0.344207748421

Spare Respiratory Capacity = 371.0425 + 40.1376035112

L\_T 700k

Non-Mitochondrial Respiration = 41.14 + 0.233827286688

Basal Respiration = 31.835 + 2.44752135844

OCR:ECAR = 2.85647703276 + 0.459588806023

Proton Leak = 4.86 + 3.02279843853

ATP Production = 26.975 + 3.88943070384

Maximal Respiration = 200.59 + 17.5464915695

OCR:ECAR = 4.17872506844 + 0.327610916282

Spare Respiratory Capacity = 168.755 + 17.7163689056

T2D\_T40 200k

Non-Mitochondrial Respiration = 28.91 + 1.53845041763

Basal Respiration = 86.01 + 4.55763584891

OCR:ECAR = 1.07697292266 + 0.0629914109056

Proton Leak = 18.325 + 3.87874133902

ATP Production = 67.685 + 5.98470374423

Maximal Respiration = 108.21 + 10.89935226

OCR:ECAR = 1.38351442854 + 0.103206740093

Spare Respiratory Capacity = 22.2 + 11.8138869225

L\_B 562k

Non-Mitochondrial Respiration = 26.835 + 0.0106066017178

Basal Respiration = 22.35 + 3.06107415787

OCR:ECAR = 3.6375852564 + 0.110791270855

Proton Leak = 0 + 3.42241325675

ATP Production = 22.35 + 4.59163233502

Maximal Respiration = 104.56 + 0.972329676602

OCR:ECAR = 3.05354084806 + 0.0677776275137

Spare Respiratory Capacity = 82.21 + 3.21179077774

T1D\_PBMC 700k

Non-Mitochondrial Respiration = 26.21 + 0.108253175473

Basal Respiration = 27.4 + 2.38091090105

OCR:ECAR = 2.77102796081 + 0.608513730896

Proton Leak = 7.18 + 2.1298851935

ATP Production = 20.22 + 3.19454967973

Maximal Respiration = 98.18 + 13.5525322818

OCR:ECAR = 2.88363436368 + 0.277124466101

Spare Respiratory Capacity = 70.78 + 13.7600824114

T2D\_T 511k

Non-Mitochondrial Respiration = 19.33 + 0.653197264742

Basal Respiration = 29.03 + 3.76329175255

OCR:ECAR = 2.38217940248 + 0.193498747021

Proton Leak = 4.93 + 0.892715374988

ATP Production = 24.1 + 3.86772614795

Maximal Respiration = 120.87 + 46.0703160638

OCR:ECAR = 3.17786648924 + 0.328840539107

Spare Respiratory Capacity = 91.84 + 46.2237643105

L\_T 600k

Non-Mitochondrial Respiration = 36.105 + 1.08540890912

Basal Respiration = 15.655 + 1.76797200204

OCR:ECAR = 3.56236612418 + 0.484847642031

Proton Leak = 0.025 + 4.95690553672

ATP Production = 15.63 + 5.26275949479

Maximal Respiration = 126.06 + 13.5175672737

OCR:ECAR = 3.78913063477 + 0.0212151214771

Spare Respiratory Capacity = 110.405 + 13.6326941578

T2D\_PBMC 637k

Non-Mitochondrial Respiration = 24.665 + 0.505581348548

Basal Respiration = 61.57 + 2.29151969226

OCR:ECAR = 2.43504625139 + 0.244724136439

Proton Leak = 16.15 + 3.9954505378

ATP Production = 45.42 + 4.60594045771

Maximal Respiration = 150.095 + 6.05277312478

OCR:ECAR = 2.69400325494 + 0.0203978159183

Spare Respiratory Capacity = 88.525 + 6.4720263442

L\_T 400k

Non-Mitochondrial Respiration = 28.23 + 0.122474487139

Basal Respiration = 7.955 + 0.832138031641

OCR:ECAR = 3.54286552759 + 0.284335037777

Proton Leak = 1.45 + 1.7154483271

ATP Production = 6.505 + 1.90662441678

Maximal Respiration = 70.57 + 8.85426743734

OCR:ECAR = 4.07319148936 + 0.118836847518

Spare Respiratory Capacity = 62.615 + 8.89328429522

T1D\_PBMC 610k

Non-Mitochondrial Respiration = 28.31 + 0.0

Basal Respiration = 29.41 + 8.05724599122

OCR:ECAR = 2.18256196319 + 0.36423259403

Proton Leak = 8.03 + 5.51490169819

ATP Production = 21.38 + 9.76388005373

Maximal Respiration = 138.27 + 27.0204894821

OCR:ECAR = 2.86128581412 + 0.259440442544

Spare Respiratory Capacity = 108.86 + 28.1962065678

T2D\_T40 (2.0)

Non-Mitochondrial Respiration = 16.37 + 0.0

Basal Respiration = 20.82 + 0.0

OCR:ECAR = 0.862131556553 + 0.0

Proton Leak = 5.75 + 0.0

ATP Production = 15.07 + 0.0

Maximal Respiration = 45.52 + 0.0

OCR:ECAR = 0.948942042318 + 0.0

Spare Respiratory Capacity = 24.7 + 0.0

L\_T 500k

Non-Mitochondrial Respiration = 12.77 + 0.350523418143

Basal Respiration = 21.465 + 2.16304911675

OCR:ECAR = 2.75056393762 + 0.0722256955518

Proton Leak = 5.23 + 1.26860670145

ATP Production = 16.235 + 2.50761728428

Maximal Respiration = 114.33 + 10.8352053083

OCR:ECAR = 3.98947368421 + 0.0929426627525

Spare Respiratory Capacity = 92.865 + 11.0490024688

L\_T 300k

Non-Mitochondrial Respiration = 19.335 + 0.0601040764009

Basal Respiration = 7.695 + 2.31548456052

OCR:ECAR = 3.92081402373 + 0.526681676292

Proton Leak = 1.54 + 2.28827992169

ATP Production = 6.155 + 3.25540992042

Maximal Respiration = 59.825 + 4.58951658674

OCR:ECAR = 4.43184257234 + 0.0928361102227

Spare Respiratory Capacity = 52.13 + 5.14053803118

L\_PBMC 400k

Non-Mitochondrial Respiration = 17.32 + 0.068041381744

Basal Respiration = 20.005 + 0.826383239943

OCR:ECAR = 1.78853891438 + 0.133877690576

Proton Leak = 3.28 + 0.446235280907

ATP Production = 16.725 + 0.939167282855

Maximal Respiration = 78.08 + 3.83770089352

OCR:ECAR = 2.60584539743 + 0.190739121511

Spare Respiratory Capacity = 58.075 + 3.92566649213

L\_PBMC 300k

Non-Mitochondrial Respiration = 13.15 + 0.0163299316186

Basal Respiration = 14.09 + 0.720259726817

OCR:ECAR = 2.73615569593 + 0.084353862483

Proton Leak = 5.62 + 0.809339007851

ATP Production = 8.47 + 1.08342221858

Maximal Respiration = 47.33 + 1.47961957073

OCR:ECAR = 2.83197947841 + 0.0304687108764

Spare Respiratory Capacity = 33.24 + 1.64561482375