

Cell types transduced by TRC library lentivirus

Detailed Report of cell types used in collaboration or consultation with the Broad Institute RNAi Platform

last updated September 2008

All conditions listed here should be used only as guidelines towards beginning your own optimization; please note that cell lines with the same name grown in different laboratories can often behave quite differently. All conditions listed here were developed in the context of specific assays and cell lines; for example, you may need different cell densities if the timeline of your assay is longer or shorter than the one described below. Each row represents an individual assay design; therefore there are often multiple rows per cell line. We have also observed differences between batches of puromycin in the concentration required for complete selection of transduced cells.

Cell line name	Tissue Type	Organism	ATCC ID	96w seeding density	384w seeding density	Virus Volume (uL/well)	Polybrene Conc (ug/mL)	Puromycin (ug/mL)	Spin Infect?	If yes, how long?	Infection Efficiency	Virus incubation time	Notes
697	B-ALL	Homo sapiens							no	n/a	>70% infection	overnight	
293T	Renal Cells	Homo sapiens		2500 or 1000		3.0	8.0	2	yes	30 minutes	100% infection	overnight	
3T3-L1	adipocyte	Mus musculus	CL-173						yes	90 minutes	100% infection	overnight	
786-0	Renal Cancer	Homo sapiens	CRL-1932			3.0	8.0	2	no	n/a	100% infection	4 hours	
786-0	renal cell carcinoma	Homo sapiens	CRL-1932			0.5	8.0	no	n/a	n/a	100% infection	4 hours	
786-0	renal cell carcinoma	Homo sapiens	CRL-1932			1.0	8.0	2	no	n/a	100% infection	4 hours	
786-0	renal cell carcinoma	Homo sapiens	CRL-1932		300	1.0	8.0	3.5	no	n/a	100% infection	overnight	
A431	epidermoid carcinoma	Homo sapiens	CRL-1555						yes	30 minutes	40-70% infection	overnight	use high amount of virus (>20uL virus per 200 uL infection volume)
A549	Lung Cancer	Homo sapiens	CCL-185			0.6	8.0	2.5	yes	30 minutes	100% infection	overnight	
A549	lung carcinoma	Homo sapiens	CCL-185			0.6	8.0		yes	90 minutes	100% infection	overnight	
A549	Lung Cancer	Homo sapiens	CCL-185						yes	90 minutes	100% infection	overnight	
A549	Lung Cancer	Homo sapiens	CCL-185						yes	30 minutes	100% infection	overnight	
A549	lung carcinoma	Homo sapiens	CCL-185						yes	90 minutes	100% infection	overnight	
A549	Lung Cancer	Homo sapiens	CCL-185						yes	30 minutes	100% infection	overnight	
A549	Lung Cancer	Homo sapiens	CCL-185						yes	30 minutes	>70% infection	overnight	
B6 MEF	mouse embryo fibroblasts	Mus musculus	N/A		250	1.5	8.0	2	yes	30 minutes	>70% infection	overnight	
Balb/c MEF	mouse embryo fibroblasts	Mus musculus	N/A										
BJ	fibroblast	Homo sapiens							yes	90 minutes	100% infection	overnight	
BJhTERT	fibroblast line immortalized with hTERT	Homo sapiens	CRL-4001						yes	90 minutes	100% infection	overnight	
BT549	Breast Cancer	Homo sapiens	CRL-1772		500	2.5	8.0	2	yes	30 minutes	>70% infection	overnight	
C2C12	Myoblast	Mus musculus	CRL-1772						yes	30 minutes	<40% but useable	overnight	
C2C12 myotube	Differentiated skeletal muscle	Mus musculus	CRL-1772						yes	90 minutes	40-70% infection	overnight	Requires high volume of virus (i.e. 30uL virus / 50uL culture volume)
CEM-1	T-ALL	Homo sapiens	CRL-2265		5000				no	n/a	>70% infection	overnight	
CH12	B-Cells	Mus musculus				15.0	10.0	0.5	no	n/a		overnight	
DDLS8817	Dedifferentiated Liposarcoma	Homo sapiens				1.0	8.0	2	yes	30 minutes	>70% infection	overnight	
Dendritic Cells	Primary Dendritic Cells	Mus musculus				7.0	8.0		yes	45 minutes	<40% but useable	overnight	
DKS-9	Colon Cancer	Homo sapiens	N/A						yes	30 minutes	100% infection	overnight	
DL1-1	Colon Cancer	Homo sapiens	CCL-221						yes	30 minutes	100% infection	overnight	
FINE 0308	Tumor initiating cells from glioblastoma	Homo sapiens		500		2.5	1.0	0.4	yes	30 minutes	> 90% infection	1 hour	
FUDDLS1	Dedifferentiated Liposarcoma	Homo sapiens			2000	1.0	8.0	2	yes	30 minutes	100% infection	overnight	
H1299	Non-Small Cell Lung Cancer	Homo sapiens				n/a	n/a	2.5	yes	30 minutes	100% infection	overnight	
HCT-116	Colon Cancer	Homo sapiens	CCL-247			3.0	8.0	2	no	90 minutes	100% infection	overnight	
HEL	Leukemia	Homo sapiens							yes	32 minutes	100% infection	2 hours	
HeLa	cervical cancer	Homo sapiens	CCL-2						yes	30 minutes	100% infection	overnight	
HL-60	Acute myeloid leukemia	Homo sapiens	CCL-240						yes	30 minutes	> 90% infection	48 hours	
HMEC-hTERT	Immortalized mammary epithelial	Homo sapiens	N/A			3.0	8.0	2	no	N/A	100% infection	4 hours	
hMSC	mesenchymal stem cell	Homo sapiens	N/A						no	N/A	100% infection	overnight	
hMSC	mesenchymal stem cell	Homo sapiens							no	N/A	100% infection	overnight	
H578T	Breast Cancer	Homo sapiens		500		1.9	8.0	2	yes	90 minutes	40-70% infection	overnight	
HT29	Colon Cancer	Homo sapiens	HTB-38			2 or 3	8.0		yes	30-45 minutes	100% infection	overnight	
INA6	Multiple Myeloma	Homo sapiens	NA						yes	30 minutes	100% infection	4 hours	
J774A.1	macrophage	Mus musculus							yes	30 minutes	<40% but useable	3 hours	
K562	AML	Homo sapiens	CCL-243						yes	30 minutes	100% infection	overnight	
LN-229	Glioblastoma	Homo sapiens	CRL-2611			3.0	8.0	2	yes	120 minutes	100% infection	overnight	
LN229	Glioblastoma	Homo sapiens	CRL-2611						yes	30 minutes	100% infection	overnight	
LN229	Glioblastoma	Homo sapiens	CRL-2611						yes	120 minutes	100% infection	overnight	
LNCaP	Prostate Cancer	Homo sapiens	CRL-1740			3.0	8.0	2	yes	30 minutes	100% infection	overnight	
LS141	Dedifferentiated Liposarcoma	Homo sapiens				1.0	8.0	2	yes	30 minutes	90% infection	overnight	
MCF7	Breast Cancer	Homo sapiens	HTB-22			3.0	8.0	2	yes	90 minutes	100% infection	overnight	
MCF7	Breast Cancer	Homo sapiens	HTB-22						yes	90 minutes	100% infection	overnight	
MCF7	Breast Cancer	Homo sapiens	HTB-22		500	1.0	8.0	2	yes	30 minutes	100% infection	overnight	
MCF7	Breast Cancer	Homo sapiens	HTB-22			4.0	8.0	2	yes	30 minutes	90% infection	overnight	
MCH58	fibroblast	Homo sapiens							yes	45 minutes	100% infection	overnight	
MDA-MB-231	Breast Cancer	Homo sapiens	HTB-26			3.0	8.0	2	yes	30 minutes	100% infection	overnight	
MDA-MB-468	breast cancer (mammary gland)	Homo sapiens	HTB-132						yes	30 minutes	100% infection	overnight	
MM1.S	Multiple Myeloma	Homo sapiens	NA						yes	30 minutes	100% infection	4 hours	
NCI-H1437	Lung Cancer	Homo sapiens	NCI-H1437		600	1.5	8.0	2	yes	30 minutes	100% infection	overnight	
NCI-H1568	Lung Cancer	Homo sapiens	NCI-H1568		800	1.5	8.0	2	yes	30 minutes	40-70% infection	overnight	
NCI-H1650	Lung Cancer	Homo sapiens	CRL-5883						yes	120 minutes	100% infection	overnight	
NCI-H1792	Lung Cancer	Homo sapiens	NCI-H1792		300	1.0	8.0	2	yes	30 minutes	>70% infection	overnight	
NCI-H1975	Lung Cancer	Homo sapiens	CRL-5804						yes	120 minutes	100% infection	overnight	
NCI-H1975	Lung Cancer	Homo sapiens	CRL-5908						yes	120 minutes	100% infection	overnight	
NCI-H1975	Lung Cancer	Homo sapiens	NCI-H1975		600	1.5	8.0	2	yes	30 minutes	>70% infection	overnight	
NCI-H2009	Lung Cancer	Homo sapiens	NCI-H2009		400	1.0	8.0	2	yes	30 minutes	> 90% infection	overnight	
NCI-H209	Lung Cancer	Homo sapiens	NCI-H23		700	1.0	8.0	2	yes	30 minutes	>70% infection	overnight	
NCI-H522	Lung Cancer	Homo sapiens	NCI-H522		1000	1.0	8.0	2	yes	30 minutes	100% infection	overnight	
NCI-H82	Lung Cancer	Homo sapiens	HTB-175						yes	120 minutes	100% infection	overnight	
Nomo	Acute myeloid leukemia	Homo sapiens		4000		5.0	8.0	2	yes	90 minutes		overnight	
PANC1	pancreatic cancer	Homo sapiens	CRL-1469			1.4	8.0		yes	90 minutes	100% infection	overnight	
PC3	Prostate Cancer	Homo sapiens	CRL-1435			3.0	8.0	2	yes	90 minutes	100% infection	overnight	
PC3	prostate cancer	Homo sapiens	CRL-1435			2.0	8.0		yes	90 minutes	100% infection	overnight	
PC3	prostate cancer	Homo sapiens	CRL-1435						yes	90 minutes	100% infection	overnight	
PC3	prostate cancer	Homo sapiens	CRL-1435			1.5	8.0	2	yes	30 minutes	100% infection	overnight	
PC3	prostate cancer	Homo sapiens	N/A						yes	30 minutes	100% infection	overnight	
PC3	primary bone marrow dendritic cells	Homo sapiens							yes	30 minutes	>70% infection	add media immediately post spin	
Primary CD34+ bone marrow cells	Hematopoietic progenitor cells	Homo sapiens							yes	30 minutes	>70% infection	2 hours	Requires high volume of virus (i.e. 30uL virus / 100uL culture volume)
Primary CD34+ cord blood cells	Hematopoietic progenitor cells	Homo sapiens							yes	31 minutes	>70% infection	2 hours	Requires high volume of virus (i.e. 30uL virus / 100uL culture volume)
Primary Cortical Neuron	Primary Cortical Neuron	Mus musculus		10000	n/a	4.0	n/a	0.5	yes	30 minutes	>70% infection	3 hours	
Primary Cortical Neuron	Primary Cortical Neuron	Mus musculus		10000	n/a	7.0	n/a	0.5	yes	30 minutes	>70% infection	overnight	
RAW 264.7	leukaemic monocyte macrophage	Mus musculus	TIB-71										
RawfNO	macrophage	Mus musculus	CRL-2278						no	n/a	100% infection	overnight	
RD02213	Dedifferentiated Liposarcoma	Homo sapiens				1.0	8.0	2	yes	30 minutes	>70% infection	overnight	
RPIM6286	Multiple Myeloma	Homo sapiens	NA						yes	30 minutes	100% infection	4 hours	

SKBR3	Breast Cancer	Homo sapiens	HTB-30		1.5	8.0	2	yes	120 minutes	100% infection	overnight	
Sup-T1	T-ALL	Homo sapiens	ORL-1942					yes	120 minutes	100% infection	overnight	
T47D	Breast Cancer	Homo sapiens	HTB-133		1.5	8.0	2	yes	120 minutes	100% infection	overnight	
T47D	Breast Cancer	Homo sapiens	HTB-133	500	3.0	8.0	2	yes	30 minutes	>70% infection	overnight	
TEC	thymic epithelial	Homo sapiens		500	1.0	8.0	2	no	n/a	100% infection	overnight	
TF-1	Leukemia	Homo sapiens						yes	33 minutes	100% infection	2 hours	
THP-1	Acute myeloid leukemia	Homo sapiens						yes	90 minutes		overnight	
THP-1	Acute myeloid leukemia	Homo sapiens		5500	6.0	8.0	0.5	yes	90 minutes	>70% infection	overnight	
U-87 MG	Glioblastoma	Homo sapiens	HTB-14					yes	120 minutes	100% infection	overnight	
U2OS	osteosarcoma	Homo sapiens			1.5	1.0	2	yes	30 minutes	>70% infection	overnight	
U2OS	osteosarcoma	Homo sapiens		500	1.5	8.0	1.5	yes	30 minutes	>70% infection	overnight	
U2OS	osteosarcoma	Homo sapiens			1.5	8.0	1.5	yes	30 minutes	90% infection	overnight	
U87	Glioblastoma	Homo sapiens	HTB-14		3.0	8.0	2	yes	90 minutes	100% infection	overnight	
V6.5	Embryonic Stem Cells	Mus musculus		1500	2.0	8.0	3.5	yes	30 minutes		overnight	
WT MEF	mouse embryo fibroblasts	Mus musculus	N/A					yes	30 minutes	100% infection	overnight	very sensitive for virus titer, high viral toxicity at good infection ratio