BioResearch

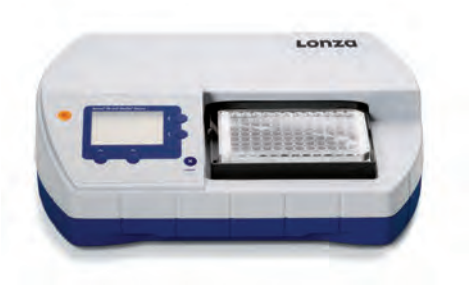
Lonza

Cell List

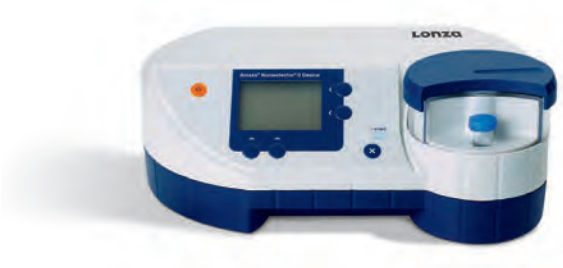
Integrated Solutions for
Primary Cells and Transfection

Clonetics™ and Poietics™ Primary Cells and Media

4D-Nucleofector™ System



Nucleofector™ 96-well Shuttle™ Device



Nucleofector™ 2b Device

Making the Most of Your Primary Cell Research

Lonza is the world's leading provider of primary cells. With our trusted brands of Clonetics™ and Poietics™ Primary Cells and Media, we offer complete and ready-to-use systems for cell culture that guarantee cell performance and more biologically relevant results from your research. This brochure includes a complete listing of all Clonetics™ and Poietics™ Primary Cell Types available. To make your research even more biologically relevant, we now offer various primary cell types from diseased tissue.

Over the past decade, Nucleofector™ Technology has become the proven method for transfection of hard-to-transfect cell lines and primary cells. The combination of cell-type specific electrical parameters, Nucleofector™ Solution and protocol yields high transfection efficiency paired with high cell viability and maintenance of cell functionality. With our Nucleofector™ Instrument Platform you can now transfect from single cuvettes up to 384-well plates, transfer protocol conditions between all given Nucleocuvette™ Formats and transfect certain primary cells at later developmental stages in adherence. Throughout this list you will find numerous examples of transfection results for primary cells and cell lines, for further details please visit us at:

www.lonza.com/celldatabase

Transfection performance data is based upon both data from Lonza R&D and on customer data. If no transfection data are available, we have listed the Nucleofector™ Kit recommended for optimization of this cell type. Transfection performance values are validated in combination with Clonetics™ and Poietics™ Cells and Media only when marked with an asterisk (*).

Combining high quality primary cells, media and supplements with the leading transfection technology for primary cells significantly reduces validation and optimization tasks at every step, as well as eliminating dissection and cell isolation – meaning that your efforts can be focused on getting the best possible assay data.

In this brochure, you will find a list of available Clonetics™ and Poietics™ Primary Cells and Media as well as related Nucleofector™ Kits. For a complete list of available formats per cell, media and Nucleofector™ Kit, please refer to our catalog or go to:

www.lonza.com/research

Primary Cells

	Clonetics™ & Poietics™ Cell Culture Products			Nucleofector™ 2b/IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
Adrenal Cells													
Adrenocortical, bovine (BAC)				32–34%			VPI-1005					V4XP-9096	
Chromaffin cells, cow				25–50%			VPI-1003					V4XP-9096	
Bone/Cartilage Cells													
Chondrocyte, human	CC-2550	CGM™	CC-3216	65%	60–70%	*	VPF-1001	74%	84%	*	P3	V4XP-3032	V4SP-3096
Osteoblasts, calvariae, rat	R-OST-583	OGM™	CC-3216									V4XP-9096	
Osteoblasts (NHOst), human	CC-2538	OGM™	CC-3216									V4XP-9096	
Dermal Cells													
Keratinocyte, adult (NHEK–Ad), human	192627	KGM-Gold™	195769	51%	40–60%	*	VPD-1002					V4XP-9096	
Keratinocyte, neonatal, pooled (NHEK–neo), human	192906	KGM-Gold™	195769	39–53%	50–60%	*	VPD-1002	59–78%	57–79%	*	P3	V4XP-3032	
Keratinocyte, neonatal, single (NHEK-neo) human	192907	KGM™ Gold	195769										
Keratinocyte, adult, diseased, Diabetes T2 (D-HEK-Ad), human	CC-2926	KGM™ Gold	195769										
Melanocyte, neonatal (NHEM–neo), human	CC-2504	MGM™ 4	CC-3249	70%	55–60%	*	VPD-1003					V4XP-9096	
Melanocyte, adult (NHEM–ad), human	CC-2586	MGM™ 4	CC-3249									V4XP-9096	
Endothelial Cells													
Endothelial, aortic (BAEC), bovine	BW-6002	EGM™ MV	CC-3125	70–90%			VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, aortic, human (HAEC)	CC-2535	EGM™ 2	CC-3162	60%	95%		VPI-1001	73%	70%		P5	V4XP-5032	V4SP-5096
Endothelial, aortic, diseased Diabetes T1 (D-HAEC), human	CC-2919	EGM™ 2	CC-3162										
Endothelial, aortic, diseased Diabetes T2 (D-HAEC), human	CC-2920	EGM™ 2	CC-3162										
Endothelial, aortic, pig				50–60%	70–90%		VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, coronary art.(HCAEC), human	CC-2585	EGM™ 2MV	CC-3202	57%	42%	*	VPB-1001				P5	V4XP-5032	V4SP-5096
Endothelial, coronary artery, diseased Diabetes T1 (D-HCAEC), human	CC-2921	EGM™ 2MV	CC-3202										
Endothelial, coronary artery, diseased Diabetes T2 (D-HCAEC), human	CC-2922	EGM™ 2MV	CC-3202										
Endothelial, iliac art.(HIAEC), human	CC-2545	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, lung, sheep				66–82%	99%		VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, mammary, human							VPI-1001	50–90%			P5	V4XP-5032	V4SP-5096
Endothelial, pulmonary artery (HPAEC), human	CC-2530	EGM™ 2	CC-3162				VPI-1001				P5	V4XP-5032	V4SP-5096

* indicates Lonza validated data

	Clonetics™ & Poietics™ Cell Culture Products			Nucleofector™ 2b/IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
Endothelial, pulmonary artery, diseased Diabetes T1 (D-HPAEC), human	CC-2923	EGM™ 2	CC-3162										
Endothelial, pulmonary artery, diseased Diabetes T2 (D-HPAEC), human	CC-2924	EGM™ 2	CC-3162										
Endothelial, umbilical vein (HUVEC), human	CC-2519	EGM™	CC-3124	90%	60–74%	*	VPB-1002	62–90%	55–76%	*	P5	V4XP-5032	V4SP-5096
Endothelial, umbilical vein (HUVEC-XL)	191027	EGM™ 2	CC-3162										
Trabecular meshwork, human				80%	80%		VPI-1001				P5	V4XP-5032	V4SP-5096
Trabecular meshwork, pig				70%	60%		VPI-1001				P5	V4XP-5032	V4SP-5096
Microvascular Endothelial Cells													
Endothelial, microvascular, bladder (HMVEC–Bd)	CC-7016	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, brain (bMVEC), bovine	AC-2509	EMVB	AC-3103				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, cardiac (HMVEC–C), human	CC-7030	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, derm. blood, adult (HMVEC–dBlAd), human	CC-2811	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, derm. blood, neo (HMVEC–dBlneo), human	CC-2813	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, derm. lymphatic, adult (HMVEC–dLyAd), human	CC-2810	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, derm. lymphatic, neo (HMVEC–dLyNeo), human	CC-2812	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, derm.(HMVEC–d), human neo.				90%			VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, dermal, adult (HMVEC–d–Ad), human	CC-2543	EGM™ 2MV	CC-3202	64%	99%		VPI-1001				P5		V4SP-5096
Endothelial, microvascular, dermal, neo (HMVEC–d–Neo), human	CC-2516	EGM™ 2MV	CC-3202	61%	93%		VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, dermal, diseased, Diabetes T1 (D-HMVEC), human	CC-2929	EGM™ 2MV	CC-3202										
Endothelial, microvascular, dermal, diseased, Diabetes T2 (D-HMVEC), human	CC-2930	EGM™ 2MV	CC-3202										
Endothelial, microvascular, lung (HMVEC–L), human	CC-2527	EGM™ 2MV	CC-3202	52%	52%	*	VPB-1003	79%	48%		P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, lung lymphatic (HMVEC–LLy), human	CC-2814	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Endothelial, microvascular, myouterine (UtMVEC), human	CC-2564	EGM™ 2MV	CC-3202				VPI-1001				P5	V4XP-5032	V4SP-5096
Epithelial Cells													
Cytotrophoblast, human				60–70%	60%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, alveolar, rat				19–24%	30–60%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, airway, pig				80%	75%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096

* indicates Lonza validated data

	Clonetics™ & Poietics™ Cell Culture Products			Nucleofector™ 2b/IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
Epithelial, bronchial (NHBE), with RA, human	CC-2540S	BEGM™	CC-3170	50–65%	50%	*	VPK-1001	54%	53%	*	P3	V4XP-3032	V4SP-3096
Epithelial, bronchial (NHBE), without RA, human	CC-2541	BEGM™	CC-3170										
Epithelial, bronchial, diseased Asthma (DHBE-As), human	194911	BEGM™	CC-3170				VPK-1001	72%	75%	*	P3	V4XP-3032	V4SP-3096
Epithelial, bronchial, diseased COPD (DHBE-COPD), human	195275	BEGM™	CC-3170				VPK-1001	63%	80%	*	P3	V4XP-3032	V4SP-3096
Epithelial, bronchial, diseased Cystic Fibrosis (DHBE-CF), human	196979	BEGM™	CC-3170										
Epithelial, bronchial, monkey				70–80%			VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, cervical, human	CC-2548	KGM™ Gold Bullet Kit	195769										
Epithelial, cornea, human				40–50%	70%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, ES-derived, human				41%	92%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, kidney, human				40%	65%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, lung type II, human				20–40%	50%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, mammary (HMEC), human	CC-2551	MEGM™	CC-3150	73%	66–98%	*	VPK-1002	51%	66%	*	P3	V4XP-3032	V4SP-3096
Epithelial, mammary, mouse				30–50%	70%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, prostate (PrEC), human	CC-2555	PrEGM™	CC-3166	43%	64%	*	VPK-1003	67%	48%	*	P1	V4XP-1032	V4SP-1096
Epithelial, renal cortical (HRCE), human	CC-2554	REGM™	CC-3190				VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, renal (HRE), human	CC-2556	REGM™	CC-3190				VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, renal proximal tubule cells (RPTEC), human	CC-2553	REGM™	CC-3190	70%	90%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, renal proximal tubule, diseased Diabetes T2, (D-RPTEC), human	CC-2925	REGM™	CC-3190										
Epithelial, retinal pigment (H-RPE), human	194987	RtEGM™	195409	30–40%			VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Epithelial, small airway, human (SAEC)	CC-2547	SAGM™	CC-3118	47%	96%		VPI-1005	64%	60–100%		P1	V4XP-1032	V4SP-1096
Epithelial, small airway, diseased Asthma (D-SAEC), human	CC-2932	BEGM™	CC-3170										
Epithelial, small airway, diseased Cystic Fibrosis (D-SAEC), human	CC-2933	BEGM™	CC-3170										
Epithelial, small airway, diseased COPD (D-SAEC), human	CC-2934	BEGM™	CC-3170										
Podocyte, mouse				70%	80%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Turbinate cell, cow				90%	70%		VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Fibroblasts													
Embryonic fibroblast (MEF), mouse	M-FB-481	DMEM	12-604F	43%	60–80%	*	VPD-1006	67–89%	75–90%	*	P4	V4XP-4032	V4SP-4096
Embryonic fibroblast, chicken				76%	50%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, aortic adventitial, human (AoAF)	CC-7014	SCGM™	CC-3205	60–70%	70–75%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, cow				85%	71–72%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096

* indicates Lonza validated data

	Clonetics™ & Poietics™ Cell Culture Products			Nucleofector™ 2b/IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
Fibroblast, cardiac, atricular (NHCF-A), human	CC-2903	FGM™ 3	CC-4526										
Fibroblast, cardiac, ventricular (NHCF-V), human	CC-2904	FGM™ 3	CC-4526										
Fibroblast, dermal (NHDF), human – adult	CC-2511	FGM™ 2	CC-3132	42–69%	74–77%	*	VPD-1001	92–96%	92–100%	*	P2	V4XP-2032	V4SP-2096
Fibroblast, dermal (NHDF), human – neo	CC-2509	FGM™ 2	CC-3132	90%	85–90%	*	VPD-1001	86–98%	86–91%	*	P2	V4XP-2032	V4SP-2096
Fibroblast, dermal, macaque				80%	81%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, ES–derived, human				53%	70–73%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, foreskin, human				80–85%	79–82%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, human, GM06940				59%			VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, lung (NHLF), human	CC-2512	FGM™ 2	CC-3132	33–54%	68–73%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, lung, diseased Asthma (D-HLF-As), human	194912	FGM™ 2	CC-3132				VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, lung, diseased COPD (D-HLF-COPD), human	195277	FGM™ 2	CC-3132				VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, lung, diseased Cystic Fibrosis (D-HLF-CF), human	194983	FGM™ 2	CC-3132										
Fibroblast, lung, mouse				20–30%	50%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, lung, rat				40–45%	50–88%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblasts, periodontal ligament (HPdLF), human	CC-7049	SCGM™	CC-3205				VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Fibroblast, tunica albuginea, human				50%	50–90%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Synoviocyte, human				75%	90%		VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Myofibroblast, human hepatic				41–57%			VPI-1002				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Myofibroblast, human intestinal	CC-2902	SmGM™	CC-3182										
Myofibroblast, rat hepatic				51–52%			VPI-1004				P2/P3	V4XP-2032/V4XP-3032	V4SP-2096/V4SP-3096
Hematopoietic Cells													
B cell, peripheral blood, CD19+, human				36%	84–92%	*	VPA-1001	28%	70%	*	P3	V4XP-3032	V4SP-3096
B-cell, mouse, stimulated				59%	27–47%	*	VPA-1010	55–56%	41–87%	*	P4	V4XP-4032	V4SP-4096
Bone marrow unprocessed, human	1M-105											V4XP-9096	V4SP-9096
Dendritic cell, human	CC-2701	LGM™ 3	CC-3211	93–99%	12–75%	*	VPA-1004					V4XP-9096	V4SP-9096
Dendritic cell, mouse, immat. – BALB/c				58%	62%	*	VPA-1011	43%	37–49%	*	P4	V4XP-4032	V4SP-4096
Dendritic cell, mouse, immat. – C57BL/6				54%	52%	*	VPA-1011	34%	41–58%	*	P4	V4XP-4032	V4SP-4096
Dendritic cell, mouse, mature – BALB/c				49%	78%	*	VPA-1011	32%	85%	*	P3	V4XP-3032	V4SP-3096
Dendritic cell, mouse, mature – C57BL/6				37%	63%	*	VPA-1011	29%	88%	*	P3	V4XP-3032	V4SP-3096
Dendritic cell, plasmacytoid, human					70–80%		VPA-1004					V4XP-9096	V4SP-9096
Macrophage, human				55–59%	87–88%	*	VPA-1008	42%	60%	*	P3	V4XP-3032	V4SP-3096
Macrophage, mouse – BALB/c				34–45%	84–92%	*	VPA-1009					V4XP-9096	V4SP-9096
Macrophage, mouse – C57BL/6				24–47%	80–88%	*	VPA-1009					V4XP-9096	V4SP-9096
Monocyte CD14+, human	2W-400A	LGM™ 3	CC-3211	60%	62–81%	*	VPA-1007	64%	77%	*	P3	V4XP-3032	V4SP-3096

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Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
Mononuclear, bone marrow, baboon	2S-101A											V4XP-9096	V4SP-9096
Mononuclear, bone marrow, canine	2S-101B											V4XP-9096	V4SP-9096
Mononuclear, bone marrow, human	2M-125A	HPGM™	PT-3926									V4XP-9096	V4SP-9096
Mononuclear, bone marrow, murine	2S-101C											V4XP-9096	V4SP-9096
Mononuclear, peripheral blood, human	CC-2702	LGM™ 3	CC-3211									V4XP-9096	V4SP-9096
Natural killer (NK), human	2W-501	LGM™ 3	CC-3211	54%	50–60%	*	VPA-10058					V4XP-9096	V4SP-9096
T cell, human stim.				41–47%	83–90%	*	VPA-1002	70%	59%	*	P3	V4XP-3032	V4SP-3096
T cell, peripheral blood, human unstim.	2W-200	LGM™ 3	CC-3211	70–75%	85%	*	VPA-1002	43–98%	51–92%	*	P3	V4XP-3032	V4SP-3096
T cell, mouse – BALB/c				44%	18–55%	*	VPA-1006	45%	32%	*	P3	V4XP-3032	V4SP-3096
T cell, mouse – C57BL/6				20–28%	17–45%	*	VPA-1006	43%	23%	*	P3	V4XP-3032	V4SP-3096
T cell, rabbit, stimulated				44%	47%		VPA-1002					V4XP-9096	V4SP-9096
Hepatocytes													
Hepatocyte, human	CC-2591	HCM™	CC-3198					54%	59–69%	*	P3	V4XP-3032	V4SP-3096
Hepatocyte, mouse				54%	80%	*	VPL-1002					V4XP-9096	V4SP-9096
Neural Cells													
Astrocyte (NHA), human	CC-2565	AGM™	CC-3186	83%			VPI-1003	85%			P3	V4XP-3032	V4SP-3096
Astrocyte, mixed Brain, C57 mouse	M-AsM-330	AGM™	CC-3186	60%	60–70%	*	VPG-1006				P3	V4XP-3032	V4SP-3096
Astrocyte, mixed Brain, CD1 mouse	M-AsM-430	AGM™	CC-3186	60%	60–70%	*	VPG-1006				P3	V4XP-3032	V4SP-3096
Astrocytes, cortex, rat	R-CxAs-520	AGM™	CC-3186				VPG-1007				P3	V4XP-3032	V4SP-3096
Astrocytes, Cx–Hi–Cp Mix, rat	R-AsM-530	AGM™	CC-3186				VPG-1007				P3	V4XP-3032	V4SP-3096
Astrocytes, hippocampus, rat	R-HiAs-521	AGM™	CC-3186				VPG-1007				P3	V4XP-3032	V4SP-3096
Astrocytes, striatum,rat	R-CpAs-522	AGM™	CC-3186	67%	70–80%	*	VPG-1007				P3	V4XP-3032	V4SP-3096
Dorsal root gang. (DRG), chicken				30%		*	VPG-1002				P3	V4XP-3032	V4SP-3096
Dorsal root gang. (DRG), mouse				40–60%			VPG-1001				P3	V4XP-3032	V4SP-3096
Dorsal root gang. (DRG), rat, embryonic	R-eDRG-515	PNGM™	CC-4461								P3	V4XP-3032	V4SP-3096
Dorsal root gang. (DRG), rat, neo	R-Drg-505	PNGM™	CC-4461	41%		*	VPG-1003				P3	V4XP-3032	V4SP-3096
Microglial, rat	R-G-535	PNGM™	CC-4461									V4XP-9096	V4SP-9096
Neurons, cerebellar granule (CGC), mouse				30–51%	80%		VPG-1001				P3	V4XP-3032	V4SP-3096
Neurons, cerebellar granule (CGC), rat	R-CB-503	PNGM™-A	CC-4512	50–60%	50–70%		VPG-1003				P3	V4XP-3032	V4SP-3096
Neurons, cortical, C57 mouse	M-Cx-300	PNGM™	CC-4461	92%			VPG-1001	20–50%	75–95%	*	P3	V4XP-3032	V4SP-3096
Neurons, cortical, CD1 mouse	M-Cx-400	PNGM™	CC-4461	92%			VPG-1001	20–50%	75–95%	*	P3	V4XP-3032	V4SP-3096
Neuron, cortical, rat	R-Cx-500	PNGM™	CC-4461	54–67%	60%	*	VPG-1003	30–60%	60–95%	*	P3	V4XP-3032	V4SP-3096
Neuron, hippocampal, chicken				43%		*	VPG-1002				P3	V4XP-3032	V4SP-3096
Neurons, hippocampal, mouse	M-Hi-401	PNGM™	CC-4461	58%		*	VPG-1001				P3	V4XP-3032	V4SP-3096
Neuron, hippocampal, rat	R-Hi-501	PNGM™	CC-4461	58–67%	47–60%	*	VPG-1003	30–60%	61–70%	*	P3	V4XP-3032	V4SP-3096
Neurons, striatal, C57 mouse	M-Cp-302	PNGM™	CC-4461	75–85%			VPG-1001				P3	V4XP-3032	V4SP-3096
Neurons, striatal CD1 mouse	M-Cp-402	PNGM™	CC-4461	75–85%			VPG-1001				P3	V4XP-3032	V4SP-3096

* indicates Lonza validated data

	Clonetics™ & Poietics™ Cell Culture Products			Nucleofector™ 2b/IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
Neuron, striatal, rat	R-Cp-502	PNGM™	CC-4461	20–30%			VPG-1003				P3	V4XP-3032	V4SP-3096
Olfactory neuron, rat							VPI-1003	50–60%			P3	V4XP-3032	V4SP-3096
Oligodendrocyte, rat				44%	60%	*	VPG-1009				P3	V4XP-3032	V4SP-3096
Pancreatic Islets													
Pancreatic Islets, Fresh, Human 5,000/10,000/20,000/100,000 cells	201981/ 83/84/85												
Primary Cancer Cells													
AML				20–70%	45–87%		contact SST						contact SST
AML–DC				23%	61%		contact SST						contact SST
B–CLL				30–60%	75–90%		contact SST						contact SST
CML				42%	80%		contact SST						contact SST
Neuroblastoma				20–90%			contact SST	80%					contact SST
Smooth Muscle Cells													
SMC, aortic (AoSMC), human	CC-2571	SmGM™ 2	CC-3182	75%	69–96%	*	VPC-1001	80%	80%	*	P1	V4XP-1032	V4SP-1096
SMC, aortic, diseased Diabetes T1 (D-AoSMC), human	CC-2914	SmGM™ 2	CC-3182										
SMC, aortic, diseased Diabetes T2 (D-AoSMC), human	CC-2916	SmGM™ 2	CC-3182										
SMC, aortic (AoSMC), mouse				30–35%	99%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, aortic (AoSMC), pig				80–90%			VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, aortic (AoSMC), rat	R-ASM-580	DMEM/F12	BE04-6870	37–75%	60–90%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, bladder, human	CC-2533	SmGM™ 2	CC-3182	80%	90%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, bronchial (BSMC), human	CC-2576	SmGM™ 2	CC-3182	59–63%	52–77%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, bronchial, diseased Asthma (D-BSMC-AS), human	194850	SmGM™ 2	CC-3182				VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, bronchial, diseased COPD (D-BSMC-COPD), human	195274	SmGM™ 2	CC-3182				VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, bronchial, diseased Cystic Fibrosis (D-BSMC-CF), human	196980	SmGM™ 2	CC-3182										
SMC, cervix, human				46–82%	81–90%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, coronary artery, human (CASMC)	CC-2583	SmGM™ 2	CC-3182	65–95%	75–95%		VPI-1004	81%	100%		P1	V4XP-1032	V4SP-1096
SMC, coronary artery, diseased Diabetes T1 (D-CASMC), human	CC-2917	SmGM™ 2	CC-3182										
SMC, coronary artery, diseased Diabetes T2 (D-CASMC), human	CC-2918	SmGM™ 2	CC-3182										
SMC, coronary, rat				80–90%	40–80%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, pulmonary artery (PASMC), human	CC-2581	SmGM™ 2	CC-3182	60–85%	80%		VPI-1004	65–85%	55–65%		P1	V4XP-1032	V4SP-1096
SMC, pulmonary artery, diseased Diabetes T1 (D-PASMC), human	CC-2915	SmGM™ 2	CC-3182										

* indicates Lonza validated data

	Clonetics™ & Poietics™ Cell Culture Products			Nucleofector™ 2b/IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
SMC, pulmonary artery, diseased Diabetes T2 (D-PASMC), human	CC-2913	SmGM™ 2	CC-3182										
SMC, prostate (PrSMC), human	CC-2587	SmGM™ 2	CC-3182				VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, umbilical art. (UASMC), human	CC-2579	SmGM™ 2	CC-3182				VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, ureter, human				95%	90%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, uterus, human	CC-2562	SmGM™ 2	CC-3182	50–70%	78–83%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, vascular, human							VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, vascular, monkey				32%	70%		VPI-1004				P1	V4XP-1032	V4SP-1096
SMC, vascular, rat				69–76%	96–97%		VPI-1004				P1	V4XP-1032	V4SP-1096
Smooth muscle (SMC), rat				50–80%	90–95%		VPI-1004				P1	V4XP-1032	V4SP-1096
Stem Cells													
Adipose stem cell, human				67%			VPE-1001					V4XP-9096	V4SP-9096
CD34⁺ cell, cord blood, human	2C-101	HPGM™	PT-3926				VPA-1003				P3	V4XP-3032	V4SP-3096
CD34⁺ cell, bone marrow, human	2M-101	HPGM™	PT-3926	82%	70%	*	VPA-1003	83%	62%	*	P3	V4XP-3032	V4SP-3096
CD133⁺ cells, cord blood, human	2C-102	HPGM™	PT-3926									V4XP-9096	V4SP-9096
Dental pulp stem cells (DPSC), Human	PT-7601	DPSC	PT-7604										
Embryonic stem (ES) cell, human				20–78%	50–96%	*	VPH-5002	64%	98%	*	P3	V4XP-3032	V4SP-3096
Embryonic stem (ES) cell, mouse				87–90%	90–99%	*	VPH-1001	50–90%	68–81%	*	P3	V4XP-3032	V4SP-3096
Endothelial Colony Forming Cells (ECFCs)	189423	EGM™ 2 & Supplement	CC-3162/ 00190284									V4XP-9096	V4SP-9096
Erythroid progenitors, cord blood, human	2C-250											V4XP-9096	V4SP-9096
Langerhans cells, human				70%			VPA-1004					V4XP-9096	V4SP-9096
Mesenchymal stem (MSC), human	PT-2501	MSCGM™	PT-3001	55–88%	50–86%	*	VPE-1001	69–78%	65–71%	*	P1	V4XP-1032	V4SP-1096
Mesenchymal stem (MSC), rat	PT-2505	RMSC Poietics™	192853									V4XP-9096	V4SP-9096
Neural precursor, cow				62–65%	73–75%		VPI-1003					V4XP-9096	V4SP-9096
Neural progenitor (NHNP), human	PT-2599	NPMM	CC-3209									V4XP-9096	V4SP-9096
Neural stem cell (NSC), human				90%			VPG-1004					V4XP-9096	V4SP-9096
Neural stem cell (NSC), mouse				82%		*	VPG-1004	60%	80%		P4	V4XP-4032	V4SP-9096
Neural stem cell (NSC), rat				42–46%		*	VPG-1005					V4XP-9096	V4SP-9096
Osteoclasts, precursor, human	2T-110	OPGM	PT-8001									V4XP-9096	V4SP-9096
Preadipocytes, subcutaneous, human	PT-5001	PGM™ 2	PT-8002	30–40%	50–80%		VPI-1002	37–92%	34–92%	*	P1	V4XP-1032	V4SP-1096
Preadipocytes, subcutaneous, human Diabetes Type I	PT-5021	PGM™ 2	PT-8002									V4XP-9096	V4SP-9096
Preadipocytes, subcutaneous, human Diabetes Type II	PT-5022	PGM™ 2	PT-8002					28–70%	28–75%	*	P1	V4XP-1032	V4SP-1096
Preadipocytes, visceral , human	PT-5005	PGM™ 2	PT-8002	30–40%	50–80%		VPI-1002	37–92%	34–92%	*	P1	V4XP-1032	V4SP-1096
Preadipocytes, visceral, human Diabetes Type I	PT-5023	PGM™ 2	PT-8002									V4XP-9096	V4SP-9096
Preadipocytes, visceral, human Diabetes Type II	PT-5024	PGM™ 2	PT-8002					28–70%	28–75%	*	P1	V4XP-1032	V4SP-1096

* indicates Lonza validated data

	Clonetics™ & Poietics™ Cell Culture Products			Nucleofector™ 2b/IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name	**Cell Cat. No.**	**Recommended Medium**	**Media Cat No.**	**Efficiency**	**Viability**	*	**Cat. No.**	**Efficiency**	**Viability**	*	**Solution**	**Cat.No.4D-Nucleofector™**	**Cat.No. 96-Well Shuttle™**
Stem Cell Derived Cells													
Adipose–Derived Stem Cells (ADSC)	PT-5006	ADSC-GM	PT-4505									V4XP-9096	V4SP-9096
CorAT™ GFP Cardiomyocytes, mouse ESC derived				50–61%	80%	*	VCA-1003	61%	86%		SG	V4XC-3032	V4SC-3096
CorAT™ Cardiomyocytes, mouse ESC derived				50–61%	80%	*	VCA-1003	61%	86%		SG	V4XC-3032	V4SC-3096
Retinal Cells													
Retinal Cells, Rat	R-Ret-508	PNGM™	CC-4461										
Retinal Pigmented Epithelial Cells, human	194987	RtEGM™	195409	30–40%			VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Other Cells													
Cardiomyocyte, rat	R-CM-561	RCGM	CC-4515	75–80%	50–60%	*						V4XP-9096	V4SP-9096
Cervical stromal cell, human				30–40%			VPI-1002					V4XP-9096	V4SP-9096
Mesangial cell(NHMC), human	CC-2559	MsGM™	CC-3146	83%	81%		VPI-1004					V4XP-9096	V4SP-9096
Prostate stromal cell (PrSC), human	CC-2508	SCGM™	CC-3205									V4XP-9096	V4SP-9096
Sertoli cell (HseC), human	MM-HSE-2305	SeGM™	191053									V4XP-9096	V4SP-9096
Skeletal muscle cell(SkMC), human	CC-2561	SkGM™	CC-3160					55%	80%		P4	V4XP-4032	V4SP-4096
Skeletal muscle myoblasts (HSMM), human Diabetic Type I	CC-2900	SkGM™ 2	CC-3245									V4XP-9096	V4SP-9096
Skeletal muscle myoblasts (HSMM), human Diabetic Type II	CC-2901	SkGM™ 2	CC-3245									V4XP-9096	V4SP-9096
Skeletal muscle myoblasts (HSMM), human	CC-2580	SkGM™ 2	CC-3245					72–78%	61%	*	P5	V4XP-5032	V4SP-5096
Trophoblast, human				95%	75%		VPD-1001				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Trophoblast, mouse				10–20%			VPI-1005				P3/P1	V4XP-3032/V4XP-1032	V4SP-3096/V4SP-1096
Parasites													
B. bovis							contact SST						contact SST
Leishmania t.				7%			contact SST						contact SST
P. berghei				0.10–1%			contact SST						contact SST
P. marinus				38%	10%		contact SST						contact SST
P. yoelii					40–60%		contact SST						contact SST
T. brucei				10.80%	60–71%		contact SST						contact SST

* indicates Lonza validated data

Cell Lines (Transfection Data Only)

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
0–9											
1205 Lu	Skin/Hair Epith.	90%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
1321N1	Glial Cells	53–80%	44–72%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
143B	Bone	70%	70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
22Rv1	Prostate Epith.	50–60%	70–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
23132/87	GI Tract Epith.	20%	89–93%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
293	Kidney Epith.	84%		*	VCA-1003	83–93%	73–93%	*	SF	V4XC-2032	V4SC-2096
293 [suspension]	Kidney Epith.	71%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
293-F FreeStyle™ (Life Technologies)	Kidney Epith.	96%	79%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
293T	Kidney Epith.	90%	90%		VCA-1003	40-95%			SF	V4XC-2032	V4SC-2096
2A8	B cell	42–50%	63–72%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
2PK3	B cell	85%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
300.19	B cell	97–98%	62–84%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
32D	Leukocyte (unspec.)	79%	61%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
3A9	T Cell	30%	50–60%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
3T3-L1 ad	Fibroblast	25%	90%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
3T3-L1 pre-ad	Fibroblast	73%	59%	*	VCA-1003	97%	66-79%	*	SE	V4XC-1032	V4SC-1096
3T3-Swiss albino	Fibroblast	70–80%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
4T1	Mammary Epith.	31–86%	51–78%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
5838 Ewing's	Bone	61–77%	88–92%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
661W	Eye Epith.	50–70%	60–70%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
697	B cell	15–58%	29–84%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Jul-17	Dendritic cell (DC)	63%	62%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
720	T Cell	81–92%	64–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
721.174	B cell	20–26%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
721.22	B cell	85%	75%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
721.221	B cell	50–51%	53–71%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
786-0	Kidney Epith.	75%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
A											
A-10	Smooth muscle cell	64%	74%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
A-375	Skin/Hair Epith.	72%	97%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
A-431	Uterine/Vaginal Epith.	45%	83%	*	VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
A-498	GI Tract Epith.	60%	70%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
A-673	Myoblast	85–90%	90–99%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
A172	Glial Cells	30%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
A2.A2	T Cell	48%	45%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
A20	B cell	37–74%	81–95%	*	VCA-1003	80%			SF	V4XC-2032	V4SC-2096
A2058	Skin/Hair Epith.	81%	94%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
A2780	Ovary Epith.	80%			VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
A3.01	T Cell	81%	83–93%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
A549	Respiratory Tract Epith.	72%	81%	*	VCA-1002	81%	62%	*	SF	V4XC-2032	V4SC-2096
A7r5	Smooth muscle cell	49%	81%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
AGN2a	Neuroblast	60–99%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
AGS	GI Tract Epith.	73%	62%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
ARH 77	B cell	27–51%	47–89%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
ARPE-19	Eye Epith.	83%	92%	*	VCA-1003	87%			SE	V4XC-1032	V4SC-1096
ASZ001	Skin/Hair Epith.	50%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
AT-1	Leukocyte (unspec.)	66%	36–46%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
ATDC5	Cartilage	70–80%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
AtT20	Pituitary Gland Epith.	30–80%	50–55%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
B											
B-cell lymphoma cell line	B cell	65%	62%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
b-END	Brain Endo.	20–25%	70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
B157	B cell	50–60%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
B16-F0	Skin/Hair Epith.	84%	91%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
B16-F1	Skin/Hair Epith.	80%	100%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
B16-F10	Skin/Hair Epith.	91%	96%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
B35	Neuroblast	28–36%	83–93%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
B65	Neuroblast	75%	95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BA/F3 (DSMZ)	B cell	88%	79%	*	VCA-1003	80%	60-70%	*	SG	V4XC-3032	V4SC-3096
Balb/c 3T3	Fibroblast	83–88%	94–96%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
BC-1	Leukocyte (unspec.)	47%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BCBL1	B cell	57–84%	35–57%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BCL1 clone 5B1b	B cell	37%	75%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
BCL1.3B3	B cell	26–33%	45–50%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
BE2-M17	Neuroblast	35–40%	100%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
BEAS-2B	Respiratory Tract Epith.	80%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
BeWo	Embryonic/ Extraembryonic Epith.	90%	85%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
Beta TC-6	Pancreas					65%	66%	*	SF	V4XC-2032	V4SC-2096
BHK-21	Kidney Epith.	85%	78%	*	VCA-1005	86-96%	75-100%	*	SE	V4XC-1032	V4SC-1096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
BHP2-7	Thyroid Epith.	77%	99%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BJ	Fibroblast	52%	76%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
BJ1-hTERT	Fibroblast	50%	50%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
BJAB	B cell	30–78%	58–93%		VCA-1002	89-97%	58-68%		SF	V4XC-2032	V4SC-2096
BJMC3879	Mammary Epith.	40–70%	95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BL2	Leukocyte (unspec.)	48–96%	60–94%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BL3	Leukocyte (unspec.)	64–82%	73–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BLCL	B cell	67–80%	54–80%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
BPH1	Prostate Epith.	60–65%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
BRIN-BD11	Pancreas	40–50%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BT-20	Mammary Epith.	40–50%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BT549	Mammary Epith.	60%			VCA-1002	55%			SE	V4XC-1032	V4SC-1096
BV173	Leukocyte (unspec.)	19–36%	30–80%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
BV2	Glial Cells	56–70%	75–95%		VCA-1002	65–70%	70–75%		SF	V4XC-2032	V4SC-2096
BW5147.3	T Cell	31%	48–54%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
BxPC-3	Pancreas Epith.	28%	62%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
C											
C10/MJ2	T Cell	35–49%	54–78%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
C17.2	Neuroblast	20%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
C28A2	Cartilage	90%	60%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
C2C12	Myoblast	82%	93%	*	VCA-1003	75-80%	70-73%	*	SE	V4XC-1032	V4SC-1096
C2F3	Myoblast	85%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
C3H10T1/2	Mesenchyme	85–90%	80–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
C57MG	Mammary Epith.	40–70%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
C6	Glial Cells	94%	75–80%	*	VCA-1003	92%	55-70%	*	SF	V4XC-2032	V4SC-2096
C8161	Skin/Hair Epith.	90%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
CA46	B cell	78%	91%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
Caco-2	GI Tract Epith.	59%	70%	*	VCA-1002	82%	70-80%	*	SE	V4XC-1032	V4SC-1096
Caco-2/TC7	GI Tract Epith.	56–71%	60–75%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
Cal-85-1	Mammary Epith.				VCO-1001N	70–80%			SF	V4XC-2032	V4SC-2096
CAL51	Mammary Epith.	90%			VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
Calu-3	Respiratory Tract Epith.	40%			VCA-1003	70-81%	54-90%	*	SE	V4XC-1032	V4SC-1096
Calu-6	Respiratory Tract Epith.	73%	50–87%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
CAMA 1	Mammary Epith.				VCO-1001N	85%			SF	V4XC-2032	V4SC-2096
CAP (CEVEC's Amniocyte Production)	Embryonic/ Extraembryonic Epith.	90%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Capan-1	Pancreas Epith.	29%	78%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Capan2	Pancreas	50–70%	50–70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
CCRF-CEM	T Cell	68%	79%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
CCRF-CEM C7	T Cell	60%	95–99%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
CEM-C7A	T Cell	50–80%			VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
CEM.C1	T Cell	25%	70%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
CFBE	Respiratory Tract Epith.	31%	99%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
CH1	B cell	85%	80%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
CH12	B cell	73–75%	62–99%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
CH27	B cell	30–40%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
CHM 2100	Blood/Bone Marrow SC	41%	80–96%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
CHO [suspension]	Ovary Epith.	92%	82%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
CHO-DG44 (DHFR-)	Ovary Epith.	93%	95%		VCA-1003	90-95%	80-95%		SG	V4XC-3032	V4SC-3096
CHO-K1	Ovary Epith.	84–94%	53–96%	*	VCA-1002	76-86%	68-97%	*	SF	V4XC-2032	V4SC-2096
CHO-S [suspension] (Life Technologies)	Ovary Epith.	90–98%	67–72%	*	VCA-1003	86%	55–57%	*	SG	V4XC-3032	V4SC-3096
Colo201	GI Tract Epith.	57%	78–96%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Colo205	GI Tract Epith.	30–68%	70–80%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
Colo357	Pancreas Epith.	40–56%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
COS-1	Fibroblast	49%	64%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
COS-7	Fibroblast	99%	94%	*	VCA-1001	91–99%	80–96%	*	SE	V4XC-1032	V4SC-1096
CRFK	Kidney Epith.	80%	65–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
CV1	Fibroblast	70%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
D											
D1 ORL UVA	Stromal cell	61%	97%	*	VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
D1F4	T Cell	45%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
D283	Neuroblast	40%	56%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
D54	Glial Cells	75%	60–90%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
Dante-BL	Leukocyte (unspec.)	20%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Daudi	Leukocyte (unspec.)	51%	70%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
DEV	Leukocyte (unspec.)	60%	70–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
DLD-1	GI Tract Epith.	80–90%	90%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
DOHH-2	B cell	35%	49–86%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
DOV13	Ovary Epith.	34%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
DT40	B cell	60–80%	42–84%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
DU 145	Prostate Epith.	47%	89%	*	VCA-1005	89-100%	70-92%	*	SE	V4XC-1032	V4SC-1096
E											
EAhy926	Umbilical Vein Endo.	59%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
eCAS	Monocyte	23–28%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096

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		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
ECC-1	Uterine/Vaginal Epith.	70–80%	95%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
EcR293	Kidney Epith.	80%	60%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
ECV304	Bladder Epith.	50%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
EL4	T Cell	65%	76%	*	VCA-1005	90%	86-92%	*	SF	V4XC-2032	V4SC-2096
EMC	Mesothelium	80–90%	95%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
EpH4	Mammary Epith.	27–35%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
ESS-1 (DSMZ)	Endometrial cell	70%	80%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
F											
F36P	Erythroblast	80%	75–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
F9	Embryonic/ Extraembryonic Epith.	63%	75–95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
FaO	Liver Epith.	63%	93%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
FDC-P1	Leukocyte (unspec.)	82%	84%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
FDCP-Mix (DSMZ)	Leukocyte (unspec.)	93%	15–91%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
FL5.12A	B cell	70%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
FM3A (RIKEN)	Mammary Epith.	30–50%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
G											
G-361	Skin/Hair Epith.	66%	83%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
GaMG	Glial Cells	83%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
GD25	Fibroblast	40%	90%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
GH3	Pituitary Gland Epith.	77%	84%	*	VCA-1005	60–80%	60–70%	*	SE	V4XC-1032	V4SC-1096
GIST882	Stromal cell	50%	85%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
GM00131 (CorielI)	B cell				VC0-1001N	45–56%	50–64%		SF	V4XC-2032	V4SC-2096
GM05849 (CorielI)	Fibroblast	30–40%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
GM09582 (CorielI)	B cell	30%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Granta519	B cell	43%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
GT1-7	Neurons (Brain)	70–80%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
H											
H4	Glial Cells	80%	80–90%		VCA-1003	72–78%			SG	V4XC-3032	V4SC-3096
H4IIE	Liver Epith.	50–65%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
H69	Cholangiocyte	53%	93%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
H9	T Cell	51–57%	48–83%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
H9c2(2-1)	Myoblast	86%	90%	*	VCA-1005	80-90%	54-72%	*	SF	V4XC-2032	V4SC-2096
HaCaT	Skin/Hair Epith.	43%		*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HC11	Mammary Epith.	30–80%	80–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HCA7	GI Tract Epith.	72–84%	83–91%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HCC1937	Mammary Epith.	30%	70–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
HCC1954	Mammary Epith.	50%	70–80%		VCA-1005	55–57%			SE	V4XC-1032	V4SC-1096
HCT 116	GI Tract Epith.	78%	76%	*	VCA-1003	70–80%	65–75%	*	SE	V4XC-1032	V4SC-1096
HCT15	GI Tract Epith.	78–80%	80–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HDLM-2	T Cell	60–70%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
HDQ-P1	Mammary Epith.				VCO-1001N	48%			SE	V4XC-1032	V4SC-1096
HEL 92.1.7	Erythroblast	94%	39–66%		VCA-1003	80%	60%		SE/SF/SG	V4XC-9064	V4SC-9096
HeLa	Uterine/Vaginal Epith.	70%		*	VCA-1001	60-85%	80-89%	*	SE	V4XC-1032	V4SC-1096
HeLa S3	Uterine/Vaginal Epith.	67%	95%	*	VCA-1005	45–85%	58–95%	*	SE	V4XC-1032	V4SC-1096
Hep G2	Liver Epith.	41–64%	86–94%	*	VCA-1003	72–95%	92%	*	SF	V4XC-2032	V4SC-2096
Hep1B	Liver Epith.	50–56%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
HEPA 1-6 (DSMZ)	Liver Epith.	22–60%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Hepatocyte immortalized, mouse	Liver Epith.	20–70%	45–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HFF, immort.	Fibroblast	55–70%	50–70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HFFF2	Fibroblast	70%	70%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
HIB1B	Adipocyte	60–71%	90–95%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
HK-2	Kidney Epith.	83–86%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HL-1	Cardiac Muscle	70%	50–70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HL-60	Leukocyte (unspec.)	90%	50–65%	*	VCA-1003	45–58%	49-61%	*	SF	V4XC-2032	V4SC-2096
HMC-1	Granulocyte	60–72%	76–99%		VCA-1003	78-81%	73-78%	*	SF	V4XC-2032	V4SC-2096
HMEC-1	Microvascular Endo.	69–74%	78–83%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
HMLE	Mammary Epith.	70–80%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HMy2.CIR	B cell		55%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HN5	Skin/Hair Epith.	60%	85%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
HPB-ALL	T Cell	75%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Hs 181.Tes	Testes Epith.	69%	60%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HT-1080	Fibroblast	74%	76%	*	VCA-1002	98%	71-81%	*	SF	V4XC-2032	V4SC-2096
HT-29	GI Tract Epith.	16–51%	57–94%	*	VCA-1001	51-67%	60%	*	SF	V4XC-2032	V4SC-2096
HT29-D4	GI Tract Epith.	70%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HTC	Liver Epith.	75%	70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
HU609	Bladder Epith.	39%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
HuH7	Liver Epith.	60–90%	95%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
HuT 102	T Cell	73%	70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
HuT 78	T Cell	53%	64%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
HUV-EC-C	Umbilical Vein Endo.	75%	77%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
I											
IEC-6	GI Tract Epith.	62–90%	50–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
IEC18	GI Tract Epith.	60%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
IGROV1	Ovary Epith.	73%	85–94%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
IHH	Liver Epith.	68%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
IM9	B cell	58–62%	87%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
IMR-32	Neuroblast	80%	62%	*	VCA-1005	74-86%	45-63%	*	SF	V4XC-2032	V4SC-2096
IMR-90	Fibroblast	51%	70%	*	VCA-1001	65%	70%	*	SE	V4XC-1032	V4SC-1096
INS-1	Pancreas	70–90%	75–85%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
INS-1E	Pancreas	75–100%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
INS1 832/13	Pancreas	65–70%	80–85%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
IOSE29	Ovary Epith.	60%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
IOSE80	Ovary Epith.	60%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
J											
J-774	Macrophage	30%			VCA-1003	30%			SF	V4XC-2032	V4SC-2096
J-Lat 6.2	T Cell	95%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
J558L	B cell	50–63%	37–88%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
J774A.1	Macrophage	75%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
JB6-1	T Cell	42%	61–70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
JB6-2	T Cell	20%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
JeKo-1	B cell	74%	48%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Jurkat	T Cell	88%	90%	*	VCA-1003	76–92%	60–80%	*	SE	V4XC-1032	V4SC-1096
Jurkat-modified	T Cell	70%	75–83%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
JVM	B cell	63%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
JVM-2 (DSMZ)	B cell	32%	72%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
K											
K-562 (DSMZ)	B cell	80–90%	88%	*	VCA-1003	90–92%	68–95%	*	SF	V4XC-2032	V4SC-2096
Karpas 299	T Cell	56–57%	50–77%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
KE-37 (DSMZ)	T Cell				VCO-1001N	23-69%	30–75%		SF	V4XC-2032	V4SC-2096
Kelly	Neuroblast	60%	35–50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
KG-1	Myeloid (unspec.)	70%	84%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
KG-1a	Myeloid (unspec.)	86%	79%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
KHYG1	Natural Killer (NK)	56%	73%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
KIT225	T Cell	28%	71–80%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
KM-H2	Leukocyte (unspec.)	60–70%	70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
KS	Lymphatic Endo.	52%	70–95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
KTA2	Thyroid Epith.	30–35%	75–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Ku812	Granulocyte								SE/SF/SG	V4XC-9064	V4SC-9096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
L											
L-428 (DSMZ)	Leukocyte (unspec.)	78%	73%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
L1.2	B cell	15–47%	55–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
L1210	Leukocyte (unspec.)	70%	70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
L1236	Leukocyte (unspec.)	60–70%	42%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
L3.6SL	Pancreas Epith.	60%	70–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
L5178Y	B cell				VCO-1001N	90–92%	89–97%		SG	V4XC-3032	V4SC-3096
L540	Leukocyte (unspec.)	50%	60%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
L6	Myoblast	59%	92%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
L87/4	Stromal cell	30%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LA-N-5	Neuroblast	61–66%	71–96%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LAMA-84 (DSMZ)	Granulocyte	80%	85%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LAZ 221	B cell	38%	80–97%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LbetaT2	Pituitary gland	80%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LCL	B cell	75%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LLC-MK2	Kidney Epith.	56%	60%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LLC-PK1	Kidney Epith.	54–88%	17–81%		VCA-1005	90-94%	83-90%		SF	V4XC-2032	V4SC-2096
LLC-PK10	Kidney Epith.	60–70%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
LN229	Glial Cells	95%	81–86%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
LNC	B cell				VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
LNCaP	Prostate Epith.	82%	70–80%	*	VCA-1001	70%	45%	*	SF	V4XC-2032	V4SC-2096
LoVo	GI Tract Epith.	65–80%	50–90%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
LP1 (DSMZ)	B cell	24–54%	45–87%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
LS180	GI Tract Epith.				VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
LX-2	Fibroblast	70–90%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
LY2	Skin/Hair Epith.	75–85%	80–90%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
M											
M-07e	Megakaryocyte	50–77%	34–62%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
M28	Mesothelium	70–85%	99%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MA 104	Kidney Epith.	52%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MC-38	GI Tract Epith.	70–80%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MC/9	Granulocyte	68%	64%		VCA-1003	55–63%	65–70%		SF	V4XC-2032	V4SC-2096
MC3	T Cell	83%	68–82%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MC3T3	Bone	60–70%			VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
MC3T3-E1 (RIKEN)	Bone	20%	95%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MC57G	Fibroblast	65–70%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
McA-RH7777	Liver Epith.				VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
MCF10	Mammary Epith.	40–70%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MCF10A	Mammary Epith.	65–92%	65–92%		VCA-1005	50-90%			SE	V4XC-1032	V4SC-1096
MCF7	Mammary Epith.	77%	60%	*	VCA-1003	72-78%	59%	*	SE	V4XC-1032	V4SC-1096
MCF7 tet	Mammary Epith.	66%	74–88%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MCT	Unknown	38–40%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MDA-MB-231	Mammary Epith.	79%	77%	*	VCA-1003	73–89%		*	SE	V4XC-1032	V4SC-1096
MDA-MB-361	Mammary Epith.	45%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MDA-MB-415	Mammary Epith.				VCO-1001N	85%			SF	V4XC-2032	V4SC-2096
MDA-MB-453	Mammary Epith.	54%	90%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
MDA-MB-468	Mammary Epith.	60%	81%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MDBK	Kidney Epith.	59%	96%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
MDCK	Kidney Epith.	73%	83%	*	VCA-1005	72-90%	51-90%	*	SE	V4XC-1032	V4SC-1096
MDCK II (ECACC)	Kidney Epith.	80%	88%	*	VCA-1005	93%	69%		SF	V4XC-2032	V4SC-2096
MDCK-C7	Kidney Epith.	90–95%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
ME-1	Myeloid (unspec.)	20%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
MedB1	B cell	34%	65%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MEG-01	Megakaryocyte	80%	66%	*	VCA-1004	67-74%	61-79%	*	SF	V4XC-2032	V4SC-2096
MEL	Erythroblast	30%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
melan-a	Skin/Hair Epith.	60%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Meso17	Mesothelium	90%	90%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Met-1fvb2	Mammary Epith.	95%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MEWO	Skin/Hair Epith.	60%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MFM223	Mammary Epith.	13–36%	80–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MG-63	Bone	62%	90%	*	VCA-1004	70-73%	60-65%	*	SE	V4XC-1032	V4SC-1096
MHP36	Neurons (Brain)	70–80%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MiaPaCa	Pancreas Epith.	80%	57–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
mIMCD3	Kidney Epith.	68–70%	86–91%		VCA-1001	90%	70–80%		SF	V4XC-2032	V4SC-2096
MIN6	Pancreas	60–75%	40–80%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
Mino	B cell	30–40%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MKN-1	GI Tract Epith.	75%	65–70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
mIEND	Lymphatic Endo.	35–40%	75–90%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
MLO-Y4	Bone	50%	55%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MLP29	Liver Epith.	68%			VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
MM.1S	B cell	50%	50–63%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MN9D	Neurons (Brain)	80%	80%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
MOLM-14	Monocyte				VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MOLT-4	T Cell	55%	61%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
Molt16	T Cell	61%	50–68%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MonoMac1 [MM1]	Monocyte	52–55%	54–92%		VCA-1001	40%	63%		SF	V4XC-2032	V4SC-2096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
MonoMac6 [MM6]	Monocyte	50–70%	49–95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Mouse L cell	Fibroblast	20–50%	95%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MPC-11	B cell	22%	95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Mpf	Neurons (Brain)	99%	99%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
mpkCCD(c14)		60–95%			VCA-1005	70–80%	98%		SF	V4XC-2032	V4SC-2096
MPRO	Glial Cells	37%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MRC-5	Fibroblast	92%	70–80%		VCA-1001	84-86%	67-73%	*	SE	V4XC-1032	V4SC-1096
MT4	T Cell	60%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
MTC	Mammary Epith.	42%	50–60%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MTLn3	Mammary Epith.	30–43%	50–60%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Mutu1	B cell	42–57%	24–80%		VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
MUTZ-2 (DSMZ)	Myeloid (unspec.)	55%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
MUTZ3	Leukocyte (unspec.)	20%	90%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
MV-4-11	Leukocyte (unspec.)	29%	79%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
MzCHA-1	Cholangiocyte	30–35%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
N											
N11	Glial Cells	90%	80%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
N114P2	B cell	35%	75–85%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
N1E115	Neuroblast	20%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
N9	Glial Cells	53–58%	63–74%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
NALM-6 (DSMZ)	B cell	64%	87%	*	VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
Namalwa	B cell	10–15%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NB-4 (DSMZ)	Myeloid (unspec.)	71%	66%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NBL-6	Fibroblast	57–64%	90%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NCEB-1	B cell	30%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H1299 [H1299]	Respiratory Tract Epith.	99%	75%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H1435	Respiratory Tract Epith.	36%	70%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H2170	Respiratory Tract Epith.	50%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H226 [H226]	Respiratory Tract Epith.	50–60%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H292 [H292]		70–90%	70–95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H295R [H295R]	Adrenal Epith.	98–99%	90%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H358 [H-358; H358]	Respiratory Tract Epith.	82%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H460 [H460]	Respiratory Tract Epith.	56%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H69 [H69]	Respiratory Tract Epith.	16%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NCI-H929 [H929]	B cell	18–28%	49–78%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NCM460	GI Tract Epith.	52–59%	70–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NCTC clone 929	Adipocyte	67%	91%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Neuro-2a [N2a]	Neuroblast	76%	79%	*	VCA-1003	46–90%	81–97%	*	SF	V4XC-2032	V4SC-2096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
NG108-15	Glial Cells	64%	82%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NIH/3T3	Fibroblast	84%	87%	*	VCA-1001	90–95%	51–93%	*	SG	V4XC-3032	V4SC-3096
NK-92	Natural Killer (NK)	26%	40%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
NK3.3	Natural Killer (NK)	56%	80%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
NKL	Natural Killer (NK)	9–70%	60–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NKL1	Natural Killer (NK)	47–62%	65%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
NRK	Kidney Epith.	44%	91%	*	VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NRK-49F	Fibroblast	43–54%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NRK52E	Kidney Epith.	90%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NS0 (ECACC)	B cell	83%	54%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
NS1	B cell	53%	49–64%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
NSC34	Neuroblast	90%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
NTERA-2 cl.D1	Testes Epith.	90%	94%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
O											
OCI-AML1a	Myeloid (unspec.)	90%	86–92%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
OCI-AML2	Myeloid (unspec.)	52%	65%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
OCI-AML3	Myeloid (unspec.)	50–60%	50–90%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
OCI-LY-10	B cell	49%	70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
OCI-LY-3	B cell	61–63%	61–75%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
OP-6		67%	67%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
OVCAR3	Ovary Epith.	70–80%	70–95%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
P											
P19	Embryonic/ Extraembryonic Epith.	85%	80%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
P3X63Ag8	B cell	35%	78–90%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
P815	Granulocyte	62%	92%	*	VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
PAC2	Fish	40–50%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Pam212	Skin/Hair Epith.	40%	60–70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
PANC-1	Pancreas Epith.	68%	75%	*	VCA-1001	83-91%	51-61%	*	SE	V4XC-1032	V4SC-1096
Panc89	Pancreas Epith.	25%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
PC-12	Adrenal Cells	92%	81%	*	VCA-1003	83%	54-57%	*	SF	V4XC-2032	V4SC-2096
PC-3	Prostate Epith.	88%	59–66%	*	VCA-1003	83%	79%	*	SF	V4XC-2032	V4SC-2096
PLB-985	Myeloid (unspec.)	60%	75%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
PMC42	Mammary Epith.	30–50%	35–66%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
PS1	Smooth muscle cell	29–49%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
PtK1	Kidney Epith.	86%	85–95%		VCA-1001	90%	80%		SE	V4XC-1032	V4SC-1096

* indicates Lonza validated data

		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
R											
R28	Eye Epith.	30%	70–95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
R9ab	Fibroblast	70%	75–90%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
RAEL	B cell	15%	87%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
RAG2-/- R2BM3-7	Blood/Bone Marrow SC	67%	87%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
Raji	B cell	84%	67–81%	*	VCA-1003	65-69%	71%	*	SG	V4XC-3032	V4SC-3096
Ramos	B cell	27%	72%	*	VCA-1003	40-51%	70-77%	*	SG	V4XC-3032	V4SC-3096
Rat2	Fibroblast	50%	95%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
RAW 264.7	Macrophage	65%	74%	*	VCA-1003	60%	86%	*	SF	V4XC-2032	V4SC-2096
RBL	Granulocyte	60%	70%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
RBL-1	Granulocyte	83%	67%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
RBL-2H3	Granulocyte	42%	93%	*	VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
RCC26	Kidney Epith.	70%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
REH	B cell	55–68%	50–70%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Renal Cell Carcinoma	Kidney Epith.	82%	91%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
RF/6A	Eye Endo.	60%	76–91%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
RFL-6	Fibroblast	50–60%	50–75%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Rh4	Myoblast	40%	60%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Rin 1046	Pancreas	70–90%	87–95%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
RIN m5f	Pancreas				VCO-1001N	52%	59%	*	SF	V4XC-2032	V4SC-2096
RKO	GI Tract Epith.	70%	80%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
RL-952		47%			VCA-1003				SE/SF/SG	V4XC-9065	V4SC-9097
RMAS	Leukocyte (unspec.)	60%	94%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
RPMI8226	B cell	37%	70–83%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
RS4-11	B cell	56–59%	58–81%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
RT4	Bladder Epith.	17%	90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
RWPE-1	Prostate Epith.	40–43%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
S											
S1A.TB.4.8.2	T Cell	89%	66%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
S49	T Cell	81%	68–95%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SA1N	Fibroblast	75%	52%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SAM-19	T Cell	56%	74–75%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Saos-2	Bone	82%	79%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SbCl2	Skin/Hair Epith.	50–60%	60–75%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Schneider's Drosophila Line 2	Insect	77%	64–70%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Schwannoma cell line	Glial Cells	50%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SCI-ET27	Blood/Bone Marrow SC	58–60%	98%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096

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		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
SCID.adh	T Cell	40%	85%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SET-2 (DSMZ)	Leukocyte (unspec.)				VCO-1001N	80–90%	80–90%		SF	V4XC-2032	V4SC-2096
Sf9	Insect	82%	76–79%	*	VCA-1001	100%	48–64%		SF	V4XC-2032	V4SC-2096
SGHPL-4	Embryonic/ Extraembryonic Epith.	82%	78–82%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SH-SY5Y	Neuroblast	63–82%	40%	*	VCA-1003	81%	80%	*	SF	V4XC-2032	V4SC-2096
SIRC	Fibroblast	99%	94–97%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SK-BR-3	Mammary Epith.	50%	94%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 100	Skin/Hair Epith.	50%	80%		VPD-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 103	Skin/Hair Epith.	50%	70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 147	Skin/Hair Epith.	50–60%	70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 173	Skin/Hair Epith.	80%	70–80%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 187	Skin/Hair Epith.	20–30%	60%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 19	Skin/Hair Epith.	70–80%	50–60%		VPD-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 192	Skin/Hair Epith.	30–40%	50%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 197	Skin/Hair Epith.	80%	95%		VPD-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 23	Skin/Hair Epith.	40–60%	60–70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 29	Skin/Hair Epith.	30–40%	50%		VPD-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 31	Skin/Hair Epith.	40%	80%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 85	Skin/Hair Epith.	80%	80%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL 94	Skin/Hair Epith.	80–90%	50–60%		VPD-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL-28	Skin/Hair Epith.	35%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
SK-MEL-5	Skin/Hair Epith.				VCO-1001N	50%			SE	V4XC-1032	V4SC-1096
SK-N-MC	Neuroblast	60–80%	30–60%		VCA-1003	50-95%			SF	V4XC-2032	V4SC-2096
SK-N-SH	Neuroblast	85%	73%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SK-OV-3	Ovary Epith.	89%	53%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SKNAS	Neuroblast	41–57%	55–82%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SKW6.4	B cell	20%	80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Sp2/0-Ag14	Hybridoma, mouse	37-71%	80-90%		VCA-1001	65-69%	80-90%	*	SF	V4XC-2032	V4SC-2096
SP53	B cell	30–40%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
Stroco5	Neuroblast	57–65%	65–83%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
SUIT-2	Pancreas Epith.	65%	95%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
SUM52PE	Mammary Epith.	80%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SUP-T1	T Cell	29–68%	74–98%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
SVEC 4-10	Microvascular Endo.	69%	91%		VPI-1001				SE/SF/SG	V4XC-9064	V4SC-9096
SW13	Adrenal Epith.	40%			VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SW1353	Cartilage	80%	90%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SW48	GI Tract Epith.	38–48%	80%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
SW480	GI Tract Epith.	60%	86%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096

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		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
SW620	GI Tract Epith.	50–65%	50–70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
SW837	GI Tract Epith.	80%			VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
SW872	Adipocyte	40–50%	65–90%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
SZ95	Skin/Hair Epith.	70%	40%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
T											
T cell line, chicken	T Cell	20–30%	99%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
T-47D	Mammary Epith.	51%	94%	*	VCA-1003	80%		*	SE	V4XC-1032	V4SC-1096
T/C-28 a2	Cartilage	90%	80%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
T/G HA-VSMC	Smooth muscle cell	58%	79%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
T0	Fish	40%	85%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
T1165	Leukocyte (unspec.)	31%	83%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
T2	Leukocyte (unspec.)	60%	68%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
T24	Bladder Epith.	64%	92–93%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
T84	GI Tract Epith.	53%	83%	*	VCA-1002	88%	50-70%	*	SF	V4XC-2032	V4SC-2096
TA3	Mammary Epith.	96%	80–94%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
TF-1	Erythroblast	38%	82%	*	VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
TG40	T Cell	43–59%	65%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
THP-1	Monocyte	47–68%	40–58%	*	VCA-1003	58–65%	52–81%	*	SG	V4XC-3032	V4SC-3096
TK6	Leukocyte (unspec.)	19–42%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
TOM-1 (DSMZ)	B cell	44%	63%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Tot2	Myeloid (unspec.)	26–30%	60–65%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
TS/A	Mammary Epith.	35–45%	63–70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
TT	Thyroid Epith.	45–60%	40–60%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
U											
U-2 OS	Bone	98%	88%	*	VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
U-87 MG	Glial Cells	43%	91%	*	VCA-1002	75%	40-50%	*	SE	V4XC-1032	V4SC-1096
U-937	T Cell	67%	85%	*	VCA-1004	32–39%	62–89%	*	SG	V4XC-3032	V4SC-3096
U138MG	Glial Cells	70%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
U251	Glial Cells	96%	93–95%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
U251MG	Glial Cells	91%	70%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
U266B1	B cell	86%	91%	*	VCA-1004				SE/SF/SG	V4XC-9064	V4SC-9096
U373	Glial Cells	71%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
U373MG	Glial Cells	70%	99%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
U87	Glial Cells	70%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
UACC903	Skin/Hair Epith.	90%	55–75%		VCA-1001	80%			SF	V4XC-2032	V4SC-2096
UMR 106-01	Bone	80–90%	50–90%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
UMSCC-14A	Skin/Hair Epith.	20–38%	54–70%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096

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		Nucleofector™ 2b/ IIs				4D-Nucleofector™ and 96-well Shuttle™					
Cell Name (short)	Cell Type	Efficiency	Viability	*	Cat.No.	Efficiency	Viability	*	Solution	Cat.No. 4D-Nucleofector™	Cat.No. 96-well Shuttle™
UT7	Myeloid (unspec.)	91–96%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
UT7 GM-CSF dependent	Myeloid (unspec.)	70%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
UT7-Epo	Myeloid (unspec.)	29–80%	84%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
UT7-EpoS1	Myeloid (unspec.)	25–50%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
UT7-TPO	Myeloid (unspec.)	70%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
V											
V5	Skin/Hair Epith.	63–76%	47–59%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
V79	Fibroblast	80%	50%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
VAL	B cell	79%	75%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Vero	Fibroblast	79%	97%	*	VCA-1003	92%	80-95%	*	SF	V4XC-2032	V4SC-2096
W											
WEHI-231	B cell	77%	62%	*	VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
WEHI-279	B cell	72%	56%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
WERI-Rb-1	Neurons (Ganglia)	70–80%	70–80%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
WI-38	Fibroblast	75%	91%	*	VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
WIL2-S	B cell	16–23%	49–71%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
WM-266-4	Skin/Hair Epith.	45–55%	80–90%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
WM35	Skin/Hair Epith.	30%	60–75%		VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
WRO	Thyroid Epith.	80%	50–60%		VCA-1005				SE/SF/SG	V4XC-9064	V4SC-9096
X – Z											
XG6	B cell	90%	80–96%		VCA-1002				SE/SF/SG	V4XC-9064	V4SC-9096
YT	Natural Killer (NK)	50%			VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
YTS	Natural Killer (NK)	53%			VCA-1001				SE/SF/SG	V4XC-9064	V4SC-9096
Zebrafish cell line	Fish	30%	50–60%		VCA-1003				SE/SF/SG	V4XC-9064	V4SC-9096
Z-138	B cell					70-75%	83-86%		SF	V4XC-2032	V4SC-2096
ZF4	Fish	70%			VCA–1003				SE/SF/SG	V4XC–9064	V4SC–9096

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