NEPA21 Cell Transfection Database

(10-04-2024)

For a FREE NEPA21 Demonstration and Trial
Contact: sales@sonidel.com

Transfection into Primary (Hard-to-Transfect) Cells

(To see photo results-data click on the cell name)

KEY: V: Viability, TE: Transfection Efficiency

Primary Cells	V	TE	*Primary Cells*	V	TE
HUVEC Human Umbilical Vein Endothelial Cells	**95%**	**75%**	HUVEC Human Umbilical Vein Endothelial Cells	**100%**	**92%**
HASM Human Airway Smooth Muscle Cells	**90%**	**80%**	Human Coronary-derived Smooth Muscle Cells	**82%**	**67%**
Human Endometrial Stromal Cells	**95%**	**90%**	Human Uterine Cervical Fibroblasts	**65%**	**90%**
Human Dermal Fibroblasts (HDF)	**95%**	**89%**	Human Dermal Fibroblasts (HDF)	**100%**	**80%**
Human Keratinocytes	**70%**	**65%**	Human Malignant Mesothelioma Cells	**75%**	**55%**
Human Meniscal Cells	**85%**	**55%**	Human Colorectal Cells	**53%**	**80%**
Human T Cells	**58%**	**90%**	Human T Cells	**50%**	**76%**
Human NK Cells	**48%**	**86%**	PBMC Peripheral Blood Mononuclear Cells	**93%**	**66%**
Human Erythroblasts (CD34+ Progenitor Cells)	**61%**	**34%**	Human Chronic Lymphocytic Leukaemia (CLL)	**82%**	**70%**
Human Chronic Lymphocytic Leukemia (CLL) (mRNA)	**93%**	**94%**	Human Chronic Lymphocytic Leukemia (CLL)	91%	83%
Human Osteoblast-like Cells derived from human skull	64%	74%			
Mouse Cerebral Cortex Neurons (E14)	**80%**	**70%**	Mouse Hippocampal Neurons (E14)	**80%**	**60%**
Mouse Hippocampal Neurons (E17)	**65%**	**70%**	Mouse Neural Progenitor Cells	**80%**	**60%**
Mouse Basal Ganglia Primordium	**91%**	**71%**	Mouse Cerebellar Granule Neurons	**91%**	**65%**
Mouse DRG Neurons	**70%**	**70%**	MEF Mouse Embryonic Fibroblasts	**90%**	**85%**
MEF Mouse Embryonic Fibroblasts	**75%**	**85%**	Mouse Embryonic Skin Fibroblasts	**80%**	**50%**
Mouse External Genital Fibroblasts (E15.5)	**66%**	**59%**	Mouse Cervical Epithelial Cells	**82%**	**55%**
Mouse Vascular Adventitial Fibroblasts	**90%**	**50%**			
BMMC Mouse Bone Marrow-Derived Mast Cells	**80%**	**83%**	Mouse peritoneal macrophages	**69%**	**41%**
Mouse B cells (LPS stimulated)	**81%**	**73%**	Mouse B cells	**50%**	**61%**
Mouse B cells (Unstimulated)	**84%**	**83%**	Mouse T cells (siRNA)	**88%**	**77%**
Naive Mouse CD8+ T cells (Cas9 RNP)	**50%**	**95%**	Mouse Liver Cells	**75%**	**65%**
Mouse Osteoblast Cells	**85%**	**60%**	Mouse Muscle Cells	**68%**	**54%**
Rat Cerebral Cortex Neurons (E16)	**70%**	**75%**	Rat Hippocampal Neurons	**60%**	**80%**
Rat Bulbar Neurons	**80%**	**75%**	Rat Cerebellar Neurons	**70%**	**55%**
Rat Cerebellar Granule Cells	**70%**	**80%**	Rat Schwann Cells	**90%**	**80%**

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Rat Schwann Cells	**90%**	**60%**	OEC Rat Olfactory En-sheathing Cells	**93%**	**46%**
Rat Müller Cells	**90%**	**50%**	REF Rat Embryonic Fibroblasts	**65%**	**65%**
Rat Meningeal Fibroblasts	**90%**	**95%**	PASMC Rat Pulmonary Artery Smooth Muscle Cells	**72%**	**70%**
Chick Embryonic Fibroblasts	**80%**	**90%**	Chick Embryonic Cerebellar Granule Cells	**86%**	**83%**
Bone Cartilage Cells	**96%**	**55%**	Goat Embryonic Epithelial Fibroblasts	**80%**	**55%**
Rabbit Spleen cells (B cells)	**70%**	**45%**	Canine Adipose-Derived Stromal Cells (ADSCs)		**65%**

Transfection into Stem Cells: ES, iPS, other stem cells, organoids and more

(To see photo results-data click on the cell name)

KEY: V: Viability, TE: Transfection Efficiency

Stem Cells	V	TE	*Stem Cells*	V	TE
Human iPS Cells (201B7)	**86%**	**70%**	Human iPS Cells	**94%**	**80%**
Human iPS Cells			Human iPS Cells		
Human iPS Cells (201B7)	**85%**	**94%**	Human iPS Cells (201B7)		
Human iPS Cells	**69%**	**80%**	Human iPS Cells		**73%**
Human iPS Cells Derived Neural Cells	**93%**	**54%**			
Human ES cells (H9 p.51)	**55%**	**55%**	Human ES Cells		
Human Mesenchymal Stem cells (Primary)	**78%**	**75%**	Human Mesenchymal Stem Cells	**70%**	**80%**
Human Neural Stem Cells	**97%**	**95%**	Human Neural Stem Cells	**80%**	**83%**
Human Deciduous Teeth Stem Cells (SHED)	**90%**	**92%**	Human Nucleated Cells Including Hematopoietic Stem Cells (Before cell isolation)	**73%**	**90%**
Mouse iPS Cells	**70%**	**50%**			
Mouse ES Cells	**80%**	**75%**	Mouse ES Cells	**80%**	**68%**
Mouse ES Cells	**74%**	**88%**	Mouse ES cells (129 strain, R1/E)	**80%**	**90%**
Mouse ES Cells	**70%**	**100%**	Mouse ES Cells	**80%**	**90%**
Mouse iPS cell derived Neural Stem Cells		**86%**	Mouse Neural Stem Cells	**90%**	**80%**
Mouse Neural Stem cells (Primary)	**80%**	**60%**	Mouse Neurospheres	**90%**	**75%**
Mouse Neurospheres			Mouse Trophoblast Stem Cells	**59%**	**47%**
C3H/10T1/2 Mouse Mesenchymal Stem Cells	**70%**	**85%**	Mouse Mesenchymal Stem Cells	**99%**	**89%**

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Mouse Hematopoietic Stem Cells (c-Kit positive cells)	**66%**	**45%**			
Rat ES Cells	**70%**	**76%**	Rat ES Cells	**60%**	**80%**
Human Normal Fundic Gastric Organoids		**68%**	Mouse Fundic Gastric Organoids		**65%**
Mouse Colorectal Cancer Organoids	**100%**	**50%**			

Transfection into Cell Lines

(To see photo results-data click on the cell name)

KEY: V: Viability, TE: Transfection Efficiency

	Cell Line	V	TE		*Cell Line*	V	TE
Species: Human							
HeLa	Human Cervical Carcinoma Cells	**87%**	**93%**	HeLa-K	Human Cervical Carcinoma Cells	**90%**	**90%**
293	Human Embryonic Kidney Cells	**92%**	**91%**	293	Human Embryonic Kidney Cells	**90%**	**70%**
293	Human Embryonic Kidney Cells	**72%**	**85%**	293T	Human Embryonic Kidney Cells	**90%**	**95%**
293T	Human Embryonic Kidney Cells	**83%**	**87%**	293T	Human Embryonic Kidney Cells	**70%**	**99%**
TIG-3	Human Embryonic Lung Fibroblasts	**90%**	**80%**	TIG-7	Human Embryonic Lung Fibroblasts	**89%**	**76%**
MRC-5	Human Embryonic Lung Fibroblasts	**85%**	**90%**	WI-38	Human Embryonic Lung Fibroblasts	**80%**	**70%**
HDF	Human Dermal Fibroblasts (106-05)	**90%**	**90%**	HaCat	Human Keratinocyte Cells	**96%**	**69%**
HFE145	Human Non-Cancerous Gastric Epithelial Cells	**80%**	**50%**	TIG-109	Human Skin Fibroblasts	**70%**	**60%**
BEAS-2B	Human Bronchial Epithelial Cells	**90%**	**80%**	BEAS-2B	Human Bronchial Epithelial Cells	**75%**	**96%**
SUSM-1	Human Fibroblasts	**77%**	**71%**	KMST-6	Human Fibroblasts	**70%**	**60%**
SEKI	Human Malignant Melanoma Cells	**80%**	**75%**	SW872	Human Liposarcoma Cells	**95%**	**83%**
HT1080	Human Fibrosarcoma Cells	**93%**	**81%**	HT1080	Human Fibrosarcoma Cells	**80%**	**90%**
MG-63	Human Osteosarcoma Cells	**70%**	**80%**	U2OS	Human Osteosarcoma Cells	**70%**	**80%**
Saos-2	Human Osteosarcoma Cells	**60%**	**75%**	Saos-2	Human Osteosarcoma Cells	**80%**	**70%**
PANC-1	Human Pancreatic Carcinoma Cells	**78%**	**70%**	PANC-1	Human Pancreatic Carcinoma Cells	**55%**	**75%**
MIA-PaCa-2	Human Pancreatic Carcinoma Cells	**80%**	**77%**	HepG2	Human Hepatoma Cells	**88%**	**76%**
HuH-7	Human Hepatoma Cells	**90%**	**86%**	HuH-7	Human Hepatoma Cells	**82%**	**85%**

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HLF	Human Liver Cancer Cells	**90%**	**85%**	TFK-1	Human Bile Duct Adenocarcinoma Cells	**50%**	**70%**
H69	Human Small-Cell Lung Cancer Cells	**90%**	**85%**	NCI-H69	Human Small-Cell Lung Cancer Cells	**97%**	**70%**
LC319	Human Lung Cancer Cells	**95%**	**66%**	H1299	Human Lung Cancer Cells	**90%**	**90%**
H1299	Human Lung Cancer Cells	**80%**	**80%**	KB31	Human Epidermoid Carcinoma Cells	**58%**	**64%**
HSC-2	Human Squamous Carcinoma Cells	**93%**	**98%**	HSC-3	Human Squamous Carcinoma Cells	**93%**	**98%**
Ca9-22	Human Squamous Carcinoma Cells	**60%**	**60%**	HGF	Human Gingival Fibroblasts		
HEp-2	Human Laryngeal Carcinoma Cells	**70%**	**90%**	MCF-7	Human Breast Cancer Cells	**81%**	**65%**
MCF-7	Human Breast Cancer Cells	**95%**	**80%**	MCF-7	Human Breast Cancer Cells	**80%**	**70%**
T47D	Human Breast Cancer Cells	**90%**	**85%**	BT-20	Human Breast Cancer Cells	**70%**	**80%**
MDA-MB-231	Human Breast Cancer Cells	**85%**	**90%**	MCF 10A	Human Breast Cells	**90%**	**80%**
MCF 10A	Human Breast Cells			MCF 10A	Human Breast Cells	**97%**	**69%**
A549	Human Lung Adenocarcinoma Cells	**85%**	**90%**	NUGC-3	Human Gastric Carcinoma Cells	**73%**	**68%**
NUGC-3	Human Gastric Carcinoma Cells	**65%**	**77%**		Human Patient-Derived Gastric Cancer Cells	**44%**	**74%**
GC38	Human Gastric Cancer Cells	**80%**	**80%**	MKN-45	Human Gastric Cancer Cells	**78%**	**73%**
LNCaP	Human Prostate Carcinoma	**71%**	**90%**	DU145	Human prostate Cancer Cells	**94%**	**60%**
PC-3	Human Prostate Cancer Cells	**90%**	**95%**	PC-3	Human prostate Cancer Cells	**86%**	**55%**
PNT2	Human Prostate Epithelial Cells	**85%**	**80%**	LoVo	Human Colon Adenocarcinoma Cells	**85%**	**60%**
HCT116	Human Colon Cancer Cells	**80%**	**95%**	HCT116	Human Colon Cancer Cells	**80%**	**80%**
HCT116	Human Colon Cancer Cells	**95%**	**90%**	Caco-2	Human Colon Cancer Cells	**95%**	**80%**
Caco-2	Human Colon Cancer Cells	**85%**	**80%**	SW620	Human Colon Cancer Cells	**80%**	**80%**
OVCAR-3	Human Ovarian Carcinoma Cells	**90%**	**79%**	SKOV-3	Human Ovarian Carcinoma Cells	**90%**	**90%**
RMG-1	Human Ovarian Clear Cell Adenocarcinoma	**97%**	**67%**	SK-N-SH	Human Neuroblastoma Cells	**95%**	**95%**
SH-SY5Y	Human Neuroblastoma Cells	**60%**	**90%**	SH-SY5Y	Human Neuroblastoma Cells	**70%**	**70%**
SH-SY5Y	Human Neuroblastoma Cells	**79%**	**60%**	NB9	Human Neuroblastoma Cells	**70%**	**70%**
NB69	Human Neuroblastoma Cells	**95%**	**80%**	NB-39-nu	Human Neuroblastoma Cells	**60%**	**63%**
KG-1-C	Human Oligodendroglial Cells	**85%**	**60%**	A172	Human Glioblastoma Cells	**85%**	**70%**
NP3	Human Glioblastoma Cells	**98%**	**62%**	U87 MG	Human Glioblastoma/Astrocytoma Cells	**70%**	**55%**
1321N1	Human Astrocytoma Cells	**80%**	**80%**	U-251	Human Glioblastoma Cells	**90%**	**60%**
	Immortalized Human Pericytes	**83%**	**50%**	iHAM-4	Human Amniotic Mesenchymal Cells	**59%**	**95%**

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	Human Dental Pulp Cells	**85%**	**69%**		Human Dental Pulp Cells	**90%**	**85%**
HTR-8/Svneo	Human Trophoblast Cells	**95%**	**67%**	SRA 01/04	Human Lens Epithelial Cells	**97%**	**80%**
RPE	Retinal Pigment Epithelium Cells	**90%**	**70%**	RPE-1	Retinal Pigment Epithelium Cells	**90%**	**80%**
RPTEC	Human Renal Proximal Tubule Epithelial Cells	**70%**	**85%**	HK-2	Human Renal Proximal Tubule Epithelial Cells	**50%**	**90%**
Jurkat	Human T-cell Leukemia Cells	**73%**	**94%**	Jurkat	Human T-cell Leukemia Cells	**85%**	**85%**
Jurkat	Human T-cell Leukemia Cells	**89%**	**85%**	Jurkat	Human T-cell Leukemia Cells	**99%**	**92%**
ED40515	Human T-cell Leukemia Cells	**82%**	**84%**	SNT16	Human T-cell Lymphoma Cells	**85%**	**84%**
Hut78	Human T-cell Lymphoma Cells	**51%**	**74%**				
Jeko-1	Human Mantle Cell Lymphoma (MCL) Cells	**82%**	**71%**	Jeko-1	Human Mantle Cell Lymphoma (MCL) Cells	**80%**	**63%**
MOLT-4	Human Acute Lymphoblastic Leukemia Cells	**95%**	**70%**	MV4-11	Human Acute Myeloid Leukemia Cells	**70%**	**60%**
697	Human Pre-B Acute Lymphoblastic Leukemia Cells	**68%**	**93%**	MEC1	Human Chronic Lymphocytic Leukemia Cells	**>90%**	**>90%**
Nalm-6	Human B-cell Precursor Leukemia Cells	**77%**	**82%**	Nalm-6	Human B-cell Precursor Leukemia Cells	**97%**	**76%**
KG-1	Human Acute Myeloid Leukemia Cells	**60%**	**65%**	KG-1	Human Acute Myeloid Leukemia Cells	**70%**	**65%**
MOLM-16	Human Acute Myeloid Leukemia Cells	**74%**	**68%**	PL-21	Human Acute Myeloid Leukemia Cells	**51%**	**73%**
Kasumi-1	Human Acute Myeloid Leukemia Cells	**66%**	**79%**	USCD/AML1	Human Leukemia Cells	**50%**	**50%**
M7	Human Acute Non Lymphocytic Leukemia	**85%**	**80%**	KOPT-K1	Human T cell Acute Lymphoblastic Leukemia (T-ALL) Cells	**80%**	**60%**
Loucy	Human T cell Acute Lymphoblastic Leukemia (T-ALL) Cells	**73%**	**50%**	GM12878	Human B-Lymphoblastoid Cells	**93%**	**83%**
T2	Human T and B lymphoblast Cells	**97%**	**97%**		Human EBV-immortalized B Cells	**58%**	**53%**
Namalwa	Human Burkitt's Lymphoma Cells	**70%**	**75%**	Raji	Human Burkitt's Lymphoma Cells	**97%**	**83%**
Raji	Human Burkitt's Lymphoma Cells	**95%**	**96%**	Raji	Human Burkitt's Lymphoma Cells	**85%**	**79%**
Toledo	Human Burkitt's Lymphoma Cells	**81%**	**60%**	SU-DHL-4	Human Burkitts Lymphoma Cells	**79%**	**88%**
eHAP1	Human Haploid Cells	**72%**	**65%**	K562	Human Chronic Myelogenous Leukemia Cells	**91%**	**99%**
K562	Human Chronic Myelogenous Leukemia Cells	**>90%**	**>90%**	K562	Human Chronic Myelogenous Leukemia Cells	**>90%**	**>94%**

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HL-60	Human Promyelocytic Leukemia Cells	**81%**	**82%**	HL-60	Human Promyelocytic Leukemia Cells	**80%**	**80%**
PLB-985	Human Myeloid Leukemia Cells	**94%**	**92%**	Mutu Ⅰ	Human Burkitt Lymphoma Cells	**87%**	**91%**
Mutu III	Human Burkitt Lymphoma Cells	**54%**	**92%**	Ramos	Human Burkitt Lymphoma Cells	**92%**	**57%**
Ramos	Human Burkitt Lymphoma Cells	**83%**	**57%**	Ramos-Blue	Human Burkitt Lymphoma Cells	**80%**	**55%**
Z-138	Human Mantle Cell Lymphoma Cells	**93%**	**86%**	BJAB	Human EBV-negative Burkitt Lymphoma Cells	**96%**	**96%**
SKM-1	Human MDS-derived Leukaemia Cells	**88%**	**83%**	TK6	Human B-Lymphoblast Cells	**84%**	**79%**
THP-1	Human Acute Monocytic Leukemia Cells	**76%**	**63%**	THP-1	Human Acute Monocytic Leukemia Cells	**56%**	**64%**
THP-1	Human Acute Monocytic Leukemia Cells	**85%**	**67%**	THP-1	Human Acute Monocytic Leukemia Cells	**67%**	**85%**
HMC1.2	Human Mast Leukemia Cells	**77%**	**89%**	NK-92MI	Human Natural Killer (NK) Cells	**83%**	**95%**
KHYG-1	Human Natural Killer (NK)Lleukemia Cells	**51%**	**71%**	MTA	Human Natural Killer-Like Leukemia Cells	**65%**	**61%**

Species: Mouse

NIH/3T3	Mouse Embryonic Fibroblasts	**100%**	**90%**	NIH/3T3	Mouse Embryonic Fibroblasts	**74%**	**81%**
PT67	Mouse Fibroblasts (RetroPack PT67 cell line)	**91%**	**66%**	3T3-L1	Mouse Embryonic Fibroblasts (preadipocytes)	**90%**	**90%**
MEF	Mouse Embryonic Fibroblasts	**90%**	**90%**	MEF	Mouse Embryonic Fibroblasts	**80%**	**90%**
STO	Mouse Embryonic Fibroblasts	**60%**	**51%**	N7	Mouse Embryonic Hypothalamic cells (immortalized)	**75%**	**100%**
P19C6	Mouse Embryonic Carcinoma Cells	**90%**	**50%**	F9	Mouse Testis Teratocarcinoma Cells	**85%**	**95%**
HL-1	Mouse Cardiac Muscle Cells	**70%**	**70%**	L	Mouse Fibroblasts	**90%**	**65%**
B16	Mouse Melanoma Cells	**86%**	**76%**	B16	Mouse Melanoma Cells	**77%**	**83%**
B16	Mouse Melanoma Cells	**70%**	**50%**	MC3T3-E1	Mouse Osteoblastic Cells	**85%**	**75%**
C2C12	Mouse Myoblast Cells	**94%**	**90%**	C2C12	Mouse Myoblast Cells	**90%**	**90%**
C2C12	Mouse Myoblast Cells	**80%**	**70%**	C2C12	Mouse Myoblast Cells	**94%**	**96%**
bEnd.3	Mouse Brain Endothelial Cells	**80%**	**80%**	NMuMG	Mouse Mammary Gland Epithelial Cells	**80%**	**65%**

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	Mouse Podocytes (Kidney Epithelial cells)	**100%**	**84%**		Mouse Podocytes (Kidney Epithelial cells)	**66%**	**68%**
SV40	MES 13 Mouse Mesangial Cells	**68%**	**72%**				
LLc1(LL/2)	Lewis Lung Cell Carcinoma 1 Cells	**87%**	**81%**	4T1	Mouse Breast Cancer Cells	**90%**	**95%**
FM3A	Mouse Breast Cancer Cells	**77%**	**57%**	3134	Mouse Mammary Adenocarcinoma Cells	**100%**	**70%**
Ehrlich	Mouse Ehrlich-Lettre Ascites Carcinoma Cells	**76%**	**68%**	Colon-26	Mouse Colon Adenocarcinoma Cells	**95%**	**90%**
Hepa1-6	Mouse Hepatoma Cells	**50%**	**98%**	LM8	Mouse Osteosarcoma Cells	**90%**	**85%**
LM8	Mouse Osteosarcoma Cells	**90%**	**85%**	S180	Mouse Sarcoma Cells	**72%**	**57%**
MS-1	Mouse Pancreatic Endothelial Cells	**90%**	**90%**		ddy Mouse Endometrial Cells	**60%**	**80%**
ID-8	Mouse Ovarian Cancer Cells	**95%**	**99%**	AtT-20	Mouse Pituitary Tumor Cells	**80%**	**80%**
TtT/GF	Mouse Pituitary Folliculo-Stellate-Like Cells	**65%**	**83%**	Neuro-2a	Mouse Neuroblastoma Cells	**90%**	**90%**
GL261 E9	Mouse Glioma Cells	**55%**	**57%**	BV-2	Mouse Microglial Cells	**90%**	**50%**
BV-2	Mouse Microglial Cells	**80%**	**80%**	BV-2	Mouse Microglial Cells	**92%**	**70%**
mDP	Mouse Dental Pupilla Cells	**65%**	**70%**				
MEL	Mouse Erythroleukemia Cells	**70%**	**50%**	L1210	Mouse Lymphocytic Leukemia Cells	**85%**	**70%**
WR19L	Mouse T-Cell lymphoma Cells	**92%**	**60%**	EL4	Mouse T-Cell Lymphoma Cells	**87%**	**82%**
BA/F3	Mouse pro-B Cells	**91%**	**92%**	BA/F3	Mouse pro-B Cells	**90%**	**90%**
A20	Mouse B-cell Lymphoma Cells	**99%**	**85%**	A20	Mouse B-cell Lymphoma Cells	**70%**	**65%**
CH12F3	Mouse B Lymphoma Cells	**74%**	**77%**	WEHI-231	Mouse B-cell Lymphoma Cells	**98%**	**73%**
P815	Mouse Mastocytoma Cells	**67%**	**68%**	J774.1	Mouse Macrophage-like Cells	**100%**	**70%**
RAW264.7	Mouse Macrophage-like Cells	**70%**	**56%**	RAW264.7	Mouse Macrophage-like Cells		
RAW264.7	Mouse Macrophage-like Cells	**70%**	**70%**	RAW-D	Mouse Macrophage-like Cells	**80%**	**80%**
MIN6	Mouse Pancreatic Beta Cells	**57%**	**71%**	DC2.4	Mouse Dendritic Cells	**42%**	**66%**
XS106	Mouse Dendritic Cells	**61%**	**45%**	mDC	Mouse Myeloid Dendritic Cells	**79%**	**72%**
416B	Mouse Primitive Myeloid Cells	**89%**	**64%**	32D	Mouse Myeloid Cells		**88%**
MLO-Y4	Mouse Osteocyte-like cells	**99%**	**59%**	MC/9	Mouse Mast Cells	**76%**	**84%**
MC/9	Mouse Mast Cells	**87%**	**89%**	BMBa	Mouse Bone marrow-derived basophils	**45%**	**67%**
TS	Mouse Trophoblast Stem Cells	**59%**	**47%**		Mouse hybridoma cells (lymphocytes and myeloma cells)	**100%**	**66%**

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T Cells	Mouse T cell hybridoma cells Courtesy of Prof. Yokosuka and Dr. Wakamatsu, Department of Immunology, Tokyo Medical University	**69%**	**90%**				

Species: Rat

PC12	Rat Adrenal Pheochromocytoma Cells	**90%**	**70%**	H9c2	Rat Ventricular Myoblasts	**71%**	**82%**
H9c2	Rat Ventricular Myoblasts	**75%**	**80%**	REF	Rat Embryonic Fibroblasts	**90%**	**99%**
RSC96	Rat Schwann Cells	**70%**	**85%**	A7r5	Rat Aortic Smooth Muscle Cells	**93%**	**75%**
C6	Rat Glioma Cells	**80%**	**67%**				
UMR106	Rat Osteoblastic Cells	**80%**	**70%**	RSC96	Rat Schwann Cells	**70%**	**85%**
SF2	Rat Dental Epithelial Cells	**80%**	**90%**	HAT-7	Rat Dental Epithelial Cells	**80%**	**90%**

Species: Hamster

CHO	Chinese Hamster Ovary Cells	**74%**	**90%**	CHO	Chinese Hamster Ovary Cells	**98%**	**87%**
CHO	Chinese Hamster Ovary Cells	**97%**	**97%**	CHO-DG44	Chinese Hamster Ovary Cells	**86%**	**80%**
CHO-K1	Chinese Hamster Ovary Cells	**95%**	**95%**	CHO-K1	Chinese Hamster Ovary Cells	**90%**	**99%**
CHO-S	Chinese Hamster Ovary Cells	**94%**	**93%**				

Other Species

COS-7	African Green Monkey Kidney fibroblasts	**61%**	**89%**	Vero	African Green Monkey Kidney Epithelial Cells	**85%**	**85%**
MDCK	Madrin-Darby Canine Kidney Cells	**90%**	**95%**	MDCK	Madrin-Darby Canine Kidney Cells	**91%**	**80%**
BFF	Bovine Fetal Fibroblasts	**93%**	**71%**	BFF	Bovine Fetal Fibroblasts	**78%**	**72%**
CKT-1	Bovine Kidney Epithelial Cells	**75%**	**75%**		Bovine Fibroblasts	**90%**	**63%**
BAEC	Bovine Aortic Endothelial Cells	**80%**	**80%**	LLC-PK1	Pig Kidney Epithelial Cells	**80%**	**85%**
CPK	Porcine Kidney Cells	**93%**	**60%**	DT40	Chicken B Cells	**72%**	**85%**
PGCs	Chicken Primordial Germ Cells	**98%**	**63%**	DT40	Chicken B Cells	**71%**	**60%**
A6	Xenopus Kidney Epithelial Cells	**90%**	**60%**		Exosomes (labeled DNA oligos)		

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NEPA21 Cell Transfection Database

(10-04-2024)

For a FREE NEPA21 Demonstration and Trial
Contact: sales@sonidel.com

Transfection into Cell-Culture Plates/Dishes

(To see photo results-data click on the cell name)

KEY: V: Viability, TE: Transfection Efficiency

Cells	V	TE	*Cells*	V	TE
Primary Human Skin Fibroblasts	**100%**	**50%**	Primary HUVEC	**75%**	**65%**
Primary Mouse Hippocampal Neurons (Embryonic day 14) (4 DIV)	**60%**	**50%**	Primary Mouse Hippocampal Neurons (Embryonic day 18) (2 DIV)	**85%**	**54%**
Mouse Neural Stem Cells	**71%**	**50%**	Primary Mouse Microglial Cells (1 DIV after 1 week co-culturing astrocyte and microglial cells)	**80%**	**73%**
Primary Mouse Glial Cells (14 DIV)	**80%**	**50%**	Primary Mouse Stromal Cells (1-month cultured)	**90%**	**50%**
Primary Mouse Liver Cells siRNA Knock Down	**Excel.**	**89%**			
Primary Rat Cerebral Cortex Neurons (Embryonic day 17) (2 DIV)	**70%**	**60%**	Primary Rat Hippocampal Neurons (Postnatal day 7) (11 DIV)	**100%**	**50%**
Primary Rat Granulosa Cells	**Excel.**	**41%**			
hMSC - Human Mesenchymal Stem Cells	**90%**	**70%**	SH-SY5Y - Human Neuroblastoma Cells	**90%**	**50%**
EPC - Human Endothelial Progenitor Cells			HPDE - Human Pancreatic Duct Epithelial Cells		**80%**
THP-1 - Human Acute Monocytic Leukemia Cells	**90%**	**45%**			
C2C12 - Mouse Myotubes	**94%**	**60%**	3T3-L1 - Mouse Embryonic Fibroblasts (7 days after differentiation)	**90%**	**70%**
MEF - Mouse Embryonic Fibroblasts	**80%**	**90%**	Neuro-2a - Mouse Neuroblastoma Cells	**80%**	**90%**
C6 - Rat Glioma Cells	**57%**	**55%**			

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