



Products Citations

Cell Line	Origin / Description	Type	Product	Publication
3Y1	Fibroblast	Rat	PolyMag	P. Huang, et al. Oncogene . 2007 Jan 29; [Epub ahead of print]
A172	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem . 2007 Jun 22;282(25):18634-44.
A549	Lung carcinoma	Human	ViroMagRL	JD. Pajerowski, et al. Proc Natl Acad Sci U S A . 2007 Oct 2;104(40):15619-24
AR42J	Pancreatic	Rat	PolyMag	HL. Ashurst, et al. Exp Physiol . 2007 Oct 12; [Epub ahead of print]
B11	Head and neck carcinoma	Human	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A . 2006 Jun 13;103(24):9017-22
B95a	Adherent β -lymphoblastoid	Marmoset	CombiMag	S. Kadota, et al. J Virol Methods . 2005 Sep;128(1-2):61-6
CaCo-2	Colon adenocarcinoma	Human	CombiMag	S. Guix, et al. J Virol . 2007 Sep 12; [Epub ahead of print]
Cal27	Tongue squamous carcinoma	Human	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A . 2006 Jun 13;103(24):9017-22
CEMx174	Lymphocyte	Human	ViroMag	JB. Sacha, et al. J Immunol . 2007 Mar 1;178(5):2746-54
CEMx174	Lymphocyte	Human	ViroMag	JB. Sacha, et al. J Virol . 2007 Aug 15; [Epub ahead of print]
CHO	Ovary	Hamster	CombiMag	S. Kadota, et al. J Virol Methods . 2005 Sep;128(1-2):61-6
CHO	Ovary	Hamster	PolyMag	MP. Pinto, et al. J Biol Chem . 2006 Nov 10;281(45):34492-502
CHO K1	Ovary	Hamster	PolyMag	F. Scherer, et al. Gene Therapy . 2002 Jan;9(2):102-9.
COS7	Kidney	Monkey	PolyMag	P. Huang, et al. Oncogene . 2007 Jan 29; [Epub ahead of print]
H295R	Adrenocortical	Human	CombiMag	DG. Romero, et al. Endocrinology . 2006 Dec;147(12):6046-55
H295R	Adrenocortical	Human	CombiMag	DG. Romero, et al. Endocrinology . 2007 Feb 15; [Epub ahead of print]
H295R	Adrenocortical	Human	CombiMag	DG. Romero, et al. Physiol Genomics . 2007 Feb 27; [Epub ahead of print]
H441	lung epithelial carcinoma	Human	PolyMag/CombiMag	CM. Schmidt, et al. Molecular Therapy . Volume 13, Supplement 1, May 2006
H441	lung epithelial carcinoma	Human	Magnetofection	O. Mykhaylyk, et al. Nature Protocols . 2007 Vol.2 No.10.
H9	T lymphocyte	Human	ViroMag	JA. Thomas, et al. J Virol . 2007 Apr;81(8):4367-70
H9	T lymphocyte	Human	ViroMagRL	LV. Coren, et al. J Virol . 2007 Jul 18; [Epub ahead of print]
HEK-293	Embryonic kidney	Human	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A . 2006 Jun 13;103(24):9017-22
HEK-293	Embryonic kidney	Human	PolyMag	V. Deleuze, et al. Mol Cell Biol . 2007 Apr;27(7):2687-97
HeLa	Cervical epithelial carcinoma	Human	ViroMag	S. Kadota, et al. J Virol Methods . 2005 Sep;128(1-2):61-6
HeLa	Cervical epithelial carcinoma	Human	PolyMag/SilenceMag	O. Mykhaylyk, et al. J. Magn. Magn. Mater . 311 (2007) 275–281
HeLa	Cervical epithelial carcinoma	Human	PolyMag	U. Schillinger, et al. J. Magn. Magn. Mater . 2005 May; 293(1):501-508
Hep2	Laryngeal epithelium	Human	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A . 2006 Jun 13;103(24):9017-22
HMEC-1	Microvascular endothelium	Human	PolyMag	C. Sapet, et al. Blood . 2006 Sep 15;108(6):1868-76
HMEC-1	Microvascular endothelium	Human	SilenceMag	C. Sapet, et al. Blood . 2006 Sep 15;108(6):1868-76
HNSCCs	Head and neck carcinoma	Rat	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A . 2006 Jun 13;103(24):9017-22
HNSCCs	Head and neck carcinoma	Rat	CombiMag	JR. Basile, et al. Mol Cell Biol . 2005 Aug;25(16):6889-98

HNSCCs	Head and neck carcinoma	Rat	CombiMag	JR. Basile, et al. J Biol Chem. 2007 Mar 2;282(9):6899-905
HN12	Oral cavity carcinoma	Human	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A. 2006 Jun 13;103(24):9017-22
HOS	Osteosarcoma	Human	ViroMag	JA. Thomas, et al. J Virol. 2007 Apr;81(8):4367-70
Huh-7	Hepatic	Human	CombiMag	S. Guix, et al. J Virol. 2007 Sep 12; [Epub ahead of print]
Jurkat	Acute-T cell lymphoma	Human	CombiMag/SilenceMag	R. Minami et al. Cell Immunol. 2006 Sep;243(1):41-7. Epub 2007 Jan 23.
Jurkat	Acute-T cell lymphoma	Human	Magnetofection	O. Mykhaylyk, et al. Nature Protocols. 2007 Vol.2 No.10.
K562	Chronic myelogenous leukemia	Human	PolyMag/ViroMag	F. Scherer, et al. Gene Therapy. 2002 Jan;9(2):102-9.
KS-1	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
L929	Fibrosarcoma	Mouse	ViroMag	S. Kadota, et al. J Virol Methods. 2005 Sep;128(1-2):61-6
M-1	Renal cortical	Murine	CombiMag	CM. Schmidt, et al. Molecular Therapy. Volume 13, Supplement 1, May 2006
MCF-7	Breast adenocarcinoma	Human	PolyMag	W Wei et al. J. Huazhong Univ Sci Technolog Med Sci, 2006 26: 728
MCF-7	Breast adenocarcinoma	Human	CombiMag	Wang, J. et al Immunology. 2006. doi:10.1111/j.1365-2567.2007.02554.x
MDCK	Kidney epithelial cells	Canine	PolyMag	T. Hasegawa, et al. Histochem Cell Biol. 2007 Mar;127(3):233-41.
MEF	Embryonic fibroblasts	Mouse	CombiMag	T. Seki, et al. Genes Cells. 2006 Sep;11(9):1051-70
MEF	Embryonic fibroblasts	Mouse	CombiMag	JR. Basile, et al. J Biol Chem. 2007 Mar 2;282(9):6899-905
MOLT-4	T cell leukemia	Human	CombiMag/SilenceMag	Minami et al. Cell Immunol. 2006 Sep;243(1):41-7. Epub 2007 Jan 23.
NIH-3T3	Embryonic fibroblasts	Mouse	PolyMag/SilenceMag	O. Mykhaylyk, et al. J. Magn. Magn. Mater. 311 (2007) 275–281
NIH-3T3	Embryonic fibroblasts	Mouse	PolyMag/ViroMag	F. Scherer, et al. Gene Therapy. 2002 Jan;9(2):102-9.
N2A	Neuroblastoma	Mouse	CombiMag	Z. Tan, et al. Cell Death Differ. 2007 Oct;14(10):1721-32
NYGM	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
RIE-1	Intestinal epithelial cells	Rat	PolyMag	YB. Kim, et al. J Biol Chem. 2008 Feb 5 [Epub ahead of print]
SH-SY5Y	Neuroblastoma	Human	CombiMag	K. Baer, et al. Mol Cell Neurosci. 2007 Jun;35(2):339-55
SK-N-BE2	Neuroblastoma	Human	PolyMag	M. Kaneko, et al. Exp Cell Res. 2006 Jul 1;312(11):2028-39
STC-1	Intestinal endocrine	Mouse	Magnetofection	EA. Kim, et al. J Biol Chem. 2006 Mar 17;281(11):7489-97
SVEC	Endothelial cells	Mouse	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A. 2006 Jun 13;103(24):9017-22
T98G	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
TIG3	Diploid lung fibroblasts	Human	CombiMag	T. Kojima, et al. Mol Cell Biochem. 2006 Dec;293(1-2):63-9. Epub 2006 Jul 31.
U251	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
U373	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
U87	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
Vero	Kidney	Monkey	CombiMag	S. Kadota, et al. J Virol Methods. 2005 Sep;128(1-2):61-6
Vero E6	Kidney	Monkey	CombiMag	T. Mizutani, et al. Biochem Biophys Res Commun. 2006 Aug 18;347(1):261-5
Vero E6	Kidney	Monkey	CombiMag	T. Mizutani, et al. FEMS Immunol Med Microbiol. 2006 Mar;46(2):236-43
YH-13	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
YK6-1	Glioblastoma	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.

Primary Cell	Origin / Description	Type	Product	Publication
Adherent gastric cells	Gastric glands	Human	CombiMag	A. Varro, et al. Am J Physiol Gastrointest Liver Physiol. 2007 292:G1133-40
Adherent gastric cells	Gastric glands	Mouse	CombiMag	I. Steele, et al. Am J Physiol Gastrointest Liver Physiol. 2007 Apr 26
Chondrocytes	Articular	Rabbit	PolyMag/SilenceMag	U. Schillinger, et al. J Magn Magn Mat. 2005; 293:501-508
Chondrocytes	Articular	Human	PolyMag	AD. Recklies, et al. J Biol Chem. 2005 Dec 16;280(50):41213-21
Endothelial cells	Aorta (PAEC)	Porcine	CombiMag	JR. Basile, et al. Mol Cell Biol. 2005 Aug;25(16):6889-98
Endothelial cells	Cord blood	Human	PolyMag	V. Deleuze, et al. Mol Cell Biol. 2007 Apr;27(7):2687-97
Endothelial cells	Aortic endothelium (PAEC)	Porcine	CombiMag	S. Kaur, et al. J Biol Chem. 2006 Apr 21;281(16):11347-56
Endothelial cells	Aortic endothelium (PAEC)	Rat	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A. 2006 Jun 13;103(24):9017-22
Epithelial	Lung	Mouse	CombiMag	SW. Gersting et al. J Gene Med. 2004 Aug; 6(8): 913-922
Fibroblasts	/	Mouse	PolyMag	M. Fransen, et al. J Mol Biol. 2005 Mar 11;346(5):1275-86
Fibroblasts	Foetal fibers	Mouse	CombiMag	H. Couchoux, et al. J Physiol. 2007 Feb 22; [Epub ahead of print]
Glioblastoma	Brain tumor (GBM)	Human	CombiMag/ViroMag	T. Fukushima, et al. J Biol Chem. 2007 Jun 22;282(25):18634-44.
HUVECs	Umbilical vein endothelium	Human	PolyMag	M. Doshida, et al. J Biol Chem. 2006 Aug 25;281(34):24270-8
HUVECs	Umbilical vein endothelium	Human	PolyMag	D. Nagata, et al. Hypertension. 2006 Jul;48(1):165-71
HUVEC	Umbilical vein endothelium	Rat	CombiMag	JR. Basile, et al. Proc Natl Acad Sci U S A. 2006 Jun 13;103(24):9017-22
HUVEC	Umbilical vein endothelium	Rat	PolyMag	V. Deleuze, et al. Mol Cell Biol. 2007 Apr;27(7):2687-97
MEPs	Megakaryocyte erythroid progenitor	Mouse	ViroMag	HY. Mukai, et al. Mol Cell Biol. 2006 Nov;26(21):7953-65
Myoblasts	Skeletal myotubes	Mouse	CombiMag	H. Couchoux, et al. J Physiol. 2007 Feb 22; [Epub ahead of print]
Myofibroblasts	Gastric	Human	SilenceMag	C. McCaig, et al. Gastroenterology. 2006 May;130(6):1754-63
Neurons	Hippocampal	Wistar rats	CombiMag	I. Chudotvorova, et al. J Physiol. 2005 Aug 1;566(Pt 3):671-9
Neurons	Hippocampal	Rat	CombiMag	B. Lardi-Studler, et al. J Cell Sci. 2007 Apr 15;120(Pt 8):1371-82
Neurons	Cortical (embryonic DRG)	Rat	CombiMag	Y. Uchida, et al. Genes Cells. 2005 Feb;10(2):165-79
Neurons	Vagal afferent	Mouse	CombiMag	G. de Lartigue, et al. J Neurosci. 2007 Mar 14;27(11):2876-82
Neurons	Hippocampal	Rat	CombiMag	K. Baer, et al. Mol. Cell. Neuroscience (2007) [ahead of publication] doi: 10.1016/j.mcn.2007.03.009
Neurons	Cortical	Rat	CombiMag/NeuroMag	T. Buerli, et al. Nature Protocols 2, - 3090 - 3101 (2007)
Neurons	Hippocampal	Rat	CombiMag/NeuroMag	T. Buerli, et al. Nature Protocols 2, - 3090 - 3101 (2007)
Neurons	Cortical	Rat	CombiMag	Z. Tan, et al. Cell Death Differ. 2007 Oct; 14(10):1721-32
Neurons	Hippocampal	Rat	CombiMag	O. Markova, et al. J Neurosci Meth (2007), doi:10.1016/2007.12.016
PBL	PBL	/	ViroMag	F. Scherer, et al. Gene Therapy. 2002 Jan; 9(2):102-9.
PBMC	PBMC	Macaques	ViroMag	JB. Sacha, et al. J Immunol. 2007 Mar 1;178(5):2746-54
PBMC	PBMC	Macaques	ViroMag	JB. Sacha, et al. J Virol. 2007 Aug 15; [Epub ahead of print]
PBMC	PBMC	Macaques	ViroMag	NJ. Maness, et al. J Exp Med. 2007 Oct 29; 204(11) : 2505-2512
RPE	Retinal pigment epithelium	Human	CombiMag	A. Kojima, et al. Biochem Biophys Res Commun. 2008 Feb 8; 366(2):532-8
T lymphocytes	PBMC	Macaques	ViroMag	JB. Sacha, et al. J Immunol. 2007 Mar 1;178(5):2746-54

T lymphocytes	PBMC	Macaques	ViroMag	JB. Sacha, et al. J Virol. 2007 Aug 15; [Epub ahead of print]
T lymphocytes	PBMC	Macaques	ViroMag	NJ. Maness, et al. J Exp Med. 2007 Oct 29; 204(11) : 2505-2512
T lymphocytes	PBMC	Macaques	ViroMag	JT. Minang, et al. Virology. 2008 Mar 15;372(2):430-41. Epub 2008 Feb 20.

[“In Vivo” Citations](#)

Type	Description	Product	Publication
Feline	Fibrosarcoma	PolyMag	U. Schillinger, et al. J. Magn. Magn. Mater. 2005 May; 293(1):501-508
Feline	Fibrosarcoma	Magnetofection	A. Jahnke, et al. J Vet Med. 2007; 54: 599-606
Mouse	Abdominal cavity	PolyMag	F. Krotz, et al. Molecular Therapy. 2003 May;7(5 Pt 1):700-10
Rabbit	Ear artery	PolyMag	C. Plank, et al. Expert Opin Biol Ther. 2003 Aug;3(5):745-58
Rat	Stomac	ViroMag	F. Scherer, et al. Gene Therapy. 2002 Jan;9(2):102-9.
Rat	Jejunum	PolyMag	C. Plank, et al. Expert Opin Biol Ther. 2003 Aug;3(5):745-58
Rat	Aortic root	/	L. Burdorf, et al. Xenotransplantation. 2007; 14: 372

[Generality / Technology / Method](#)

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Scherer F & al.	Magnetofection: enhancing and targeting gene delivery by magnetic force in vitro and in vivo.	Gene Ther. 2002 Jan; 9(2): 102-109.
Ferrari S, et al.	Barriers to and new approaches for gene therapy and gene delivery in cystic fibrosis.	Advanced Drug Delivery Reviews 2002 Dec. ; 54:11, p1373-1393
Hirao K., et al.	Targeted gene delivery to human osteosarcoma cells with magnetic cationic liposomes under a magnetic field.	Int J Oncol. 2003 May;22(5):1065-1071
Xiang JJ, et al.	IONP-PLL: a novel non-viral vector for efficient gene delivery.	J Gene Med. 2003 Sep;5(9):803-817.
Krotz F, et al.	Magnetofection potentiates gene delivery to cultured endothelial cells.	J. Vasc. Res. 2003 Sep-Oct; 40(5): 425-434.
Plank C, et al.	Enhancing and targeting nucleic acid delivery by magnetic force.	Expert Opin. Biol. Ther. 2003 Aug; 3(5): 745-758.
Krotz F, et al.	Magnetofection--a highly efficient tool for antisense oligonucleotide delivery in vitro and in vivo.	Mol. Ther. 2003 May; 7 (5 Pt 1): 700-710.
Plank C, et al.	The magnetofection method: using magnetic force to enhance gene delivery.	Biol. Chem. 2003 May; 384 (5): 737-747.
Plank C, et al.	Magnetofection: enhancing and targeting gene delivery with superparamagnetic nanoparticles and magnetic fields.	J. Liposome Research 2003 Feb; 13 (1): 29-32.
Schmidt-Wolf GD, et al.	Non-viral and hybrid vectors in human gene therapy: an update.	Trends in Mo Med 2003 Feb. ; Vol9, Issue 2, p67-72
Huth S, et al.	Insights into the mechanism of magnetofection using PEI-based magnetofectins for gene transfer.	J Gene Med. 2004 Aug; 6(8): 923-936.
Griesenbach U, et al	Advances in cystic fibrosis gene therapy.	Curr Opin Pulm Med. 2004 Nov;10(6):542-546

Wagner E, et al.	Targeted nucleic acid delivery into tumors: new avenues for cancer therapy	Biomedecine & Pharmacotherapy 2004 Apr. ; Vol 58, Issue 3, p152-161
Gould P, et al.	Nanoparticles probe biosystems.	Materials Today 2004 Feb ; 36 :43 :00
Berry CC, et al.	The influence of transferrin stabilised magnetic nanoparticles on human dermal fibroblasts in culture.	Intl J Pharma 2004 ; Jan 269(1) ; 211-225
Schillinger U, et al.	Advances in Magnetofection – Magnetically guided nucleic acid delivery.	J Magn Magn Mat. 2005; 293:501-508
Bonetta L	The inside scoop—evaluating gene delivery methods.	Nature Methods 2005 Nov. ; 2, 875-883
Bystrzejewski M, et al.	Arc plasma route to carbon-encapsulated magnetic nanoparticles for biomedical applications	Sensors and Actuators B: Chemical 2005 Aug; Vol 109, Issue 1, P 81-85
Gupta AK, et al.	Synthesis and surface engineering of iron oxide nanoparticles for biomedical applications.	Biomaterials 2005 June ; Volume 26, Issue 18, p3995-4021
Neuberger T, et al.	Superparamagnetic nanoparticles for biomedical applications: Possibilities and limitations of a new drug delivery system.	J Magn Magn Mat. 2005 May; Volume 293, Issue 1, p483-496
Hengge UR, et al.	Progress and prospects of skin gene therapy: a ten year history.	Clinics in Dermatology 2005 Jan. ; Vol 23, Issue 1, p107-114
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Smith C, et al.	Sharpening the tools of RNA interference State-of-the-art for siRNA Delivery	Nature Methods, June 2006, 475:486
Wei W, et al.	Magnetic iron oxide nanoparticles mediated gene therapy for breast cancer--an in vitro study.	J Huazhong Univ Sci Technolog Med Sci. 2006;26(6):728-30
Plank C, et al.	Magnetofection: enhancing and targeting gene delivery by magnetic force.	Signal Transduction 2006, Suppl., S1 –S90
Chorny M, et al.	Magnetically driven plasmid DNA delivery with biodegradable polymeric nanoparticles.	FASEB J. 2007 Apr 2
Xiang L, et al.	Bacterial magnetic particles (BMPs)-PEI as a novel and efficient non-viral gene delivery system.	J Gene Med. 2007 Jul 2;9(8):679-690 [Epub ahead of print]
Mykhaylyk O, et al.	Generation of magnetic nonviral gene transfer agents and magnetofection in vitro.	Nature Protocols. 2007 Vol.2 No.10.
Hoehn M, et al.	Cell tracking using magnetic resonance imaging.	J. Physiol. 2007; 584; 25-30.
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Jahnke A, et al.	Intra-tumoral gene delivery of feIL-2, feIFN-c and feGM-CSF using Magnetofection as a neoadjuvant treatment option for feline fibrosarcomas: a phase-I study.	J Vet Med. 2007; 54: 599-606
Pan X, et al.	Cationic Lipid-Coated Magnetic Nanoparticles Associated with Transferrin for GeneDelivery	Int J Pharm. 2008 Feb 18 [Epub ahead of print]