GenTarget Inc
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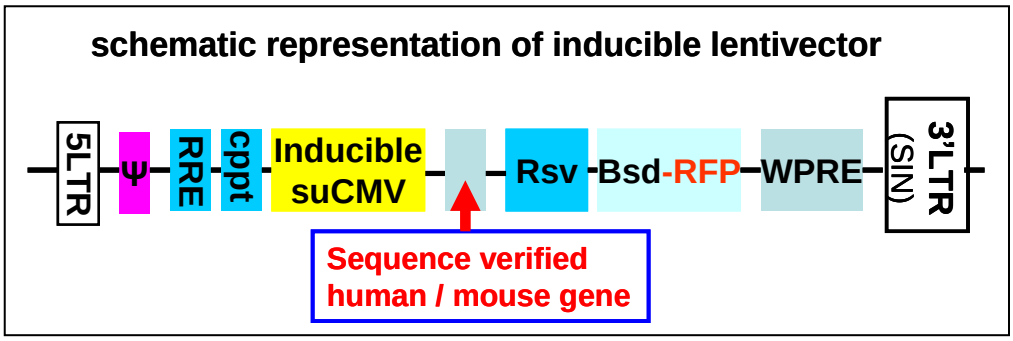
Pre-made Lentiviral Particles for mouse gene manual

Amount: 200ul/vial at > 1 x 10^7 IFU/ml
Storage: <-70 °C, avoid repeat freeze/thaw cycles. Stable for 6 months at <-70oC.

Product Description:

Lentiviral system is a gene delivery tool using lentivector for gene expression or knockdown. Lentivector is HIV-1 (Human Immunodeficiency Virus 1) derived plasmids. It produces lentiviral particles (lentivirus) that are capable to transduce into broad range of mammalian cell types or organs, including primary cells and non-dividing cells both in vivo and in cell culture system, and stably integrated into the transduced cell's genome, independent of cell cycle, for long term expression. Thus lentivirus holds unique promise as gene transfer agents

Pre-made lentiviral particles for specific mouse gene are generated from GenTarget's **inducible lentiviral system** (see vector scheme below). Vector adapted self-inactivation featured in its 3'LTR, which only generates replication-incompetent particles.



Each particles expresses a full sequence verified mouse target, matching to individual NCBI accession ID (see details in **Product List table** at end of this manual). The mouse targets were natively expressed under tetracycline inducible **suCMV promoter**. A blasticidin-RFP fusion marker under RSV promoter allows to sort or select transduced cells via RFP signal or via blasticidin antibiotic (**Dual markers**). RFP signal provides a convenient, realtime monitoring the particles performance.

All inducible lentiviral particles here can be used as regular constitutive expression. However, when inducible expression is desired, they can be used as tetracycline inducible expression in the presence of a repressor protein (tetR, tetracycline regulator protein). As inducible expression, the target expression was first repressed by TetR, and induced after tetracycline added. The presence of TetR can be achieved by co-infected premade TetR lentiviral particles or co-trasnfected with a TetR expression plasmid, or simply by a tetR

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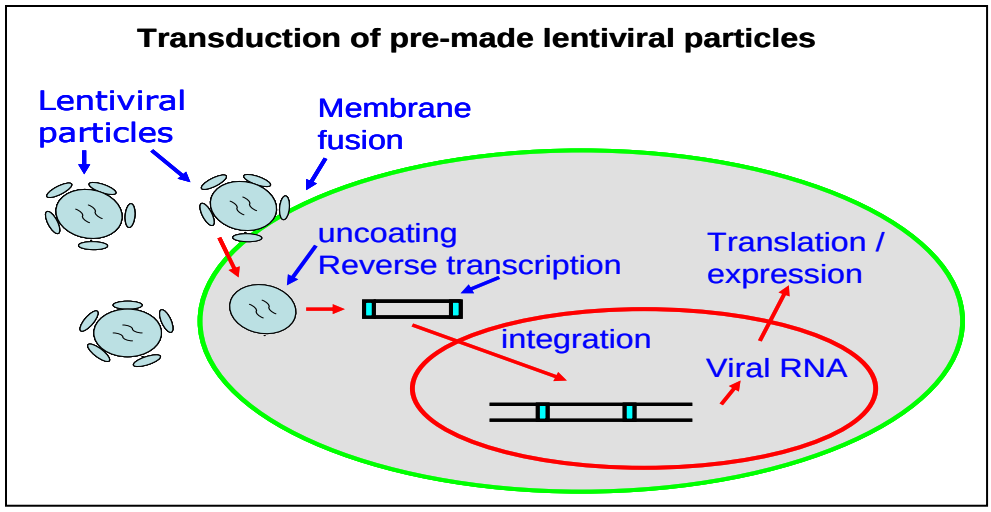
expressing stable cell line. Please see our weblink for more information about the **inducible lentiviral system**.

The ready-to-use particles are packaged in 293T cells and provided in **serum-free** medium without any human or animal origin components. Particles are safe and easy to use, simply add into cultured cells or organs. Each particles was validated in lot by lot basis and expression is guaranteed. Please see our weblink for "**FAQ about premade lentiviral particles**".



Key features:

1. High target expression level driven by suCMV;
2. Optional tetracycline inducible expression;
3. Easy transduction monitoring via the RFP fluorescent signal under microscope;
4. Dual markers: transduced cells can be sorted via a RFP fluorescent signal or selected via blasticidin antibiotic;
5. Particles are provided in serum-free medium, best for serum sensitive culture;
6. The lentivirus are ready and easy to use, simply add into your cell culture. **(see transduction carton image above).**

Note:

1. Dependent upon your specific needs, you may design the transduction with different MOI for different levels of expression.
2. For some cell lines, you may add polybrene for transduction enhancement.
3. For general transduction protocols, please refer to out weblink: **Transduction protocols for adhesive and suspension cells.**

Safety Precaution:

Please use extra caution when using lentiviral particles. Remember. Ware glove all the time at handling Lentiviral particles! Please refer CDC and NIH's links (see references) for more details regarding to safety issues.

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References:

1. Molecular Therapy (2003) 7, 460–466; doi: 10.1016/S1525-0016(03)00024-8
2. Annu Rev Microbiol. 1994;48:345-69.
3. Microbiol Mol Biol Rev. 2005 Jun;69(2):326-56.
4. NIH Guidelines for Biosafety Considerations for Research with Lentiviral Vectors. (Link).
5. CDC guidelines for Lab Biosafety levels (Link).

Warranty:

This product is warranted to meet its quality as described when used accordance with its instructions. Gentarget disclaims any implied warranty of this product for particular application. In no event shall GenTarget be liable for any incidental or consequential damages in connection with the products. Gentarget's sole remedy for breach of this warranty should be, at Gentarget's option, to replace the products.

Product list:

Pre-made expression lentiviral particles for mouse genes:

Cat#	Gene symbol	Gene name	alternative name	NCBI ID
LVP131	Acp2	acid phosphatase 2, lysosomal	LAP; Acp-2	NM_007387.2
LVP179	CSN3	casein kappa	Csnk; CSN10; AW208918; Csn3	NM_007786.4
LVP141	Gadd45a	growth arrest and DNA-damage-inducible 45 alpha	AA545191, Ddit1, GADD45	NM_007836.1
LVP008m	Klf4	Kruppel-like factor 4 (gut)	EZF; Zie; Gklf	NM_010637.3
LVP270	MEF2C	myocyte enhancer factor 2C	Mef2	NM_025282.3
LVP271	Mesp1	mesoderm posterior 1	bHLHc5; MGC159208; MGC159210	NM_008588.2
LVP268	Mitf	microphthalmia-associated transcription factor	Wh; bw; mi; vit; Bhlhe32; Vitiligo; MGC124309; MGC124310	NM_008601.3
LVP007m	Myc	myelocytomatosis oncogene	Myc2; Nird; Niard; bHLHe39; AU016757; Myc	NM_010849.4
LVP147	Myd88	myeloid differentiation primary response gene 88		NM_010851.2

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LVP003m	OCT4	POU domain, class 5, transcription factor 1	Pou5f1, Oct3; Oct4; Otf3; Otf4; Oct-3; Oct-4; Otf-3; Otf-4; Otf3g; Oct3/4; Oct-3/4; Otf3-rs7	NM_013633.2
LVP269	PAX6	paired box gene 6	Dey; Sey; AEY11; Pax-6; Gsfaey11; 1500038E17Rik	NM_013627.4
LVP004m	Sox2	SRY-box containing gene 2	lcc; ysb; Sox-2	NM_011443.3
LVP005m	NANOG	Nanog homeobox	ENK, ecat4	NM_028016.2
LVP006m	LIN28	lin-28 homolog A	Lin-28, Lin28a, Tex17	NM_145833.1
LVP350	m SRC	Rous sarcoma oncogene (src), transcript variant 2	RP23-169M4.1, AW259666, pp60c-src	NM_001025395.2|
LVP351	m shank3	SH3/ankyrin domain gene 3	AI841104, Shank3b	NM_021423

Related products:

Pre-made expression lentiviral particles for Human genes