Certificate of Analysis

pLVX-hyg-sgRNA1 Vector (Linear)

Catalog No.	Amount	Lot Number
632632 (Not sold separately) Sold as a part of 632629 & 632630	20 µl	Specified on product label.

Description

The pLVX-hyg-sgRNA1 Vector (Linear) is provided as part of the Lenti-X™ CRISPR/Cas9 System. This vector is designed for cloning and expression of a target single guide RNA (sgRNA) for mammalian gene modification studies using CRISPR/Cas9 technology. The plasmid is supplied pre-linearized for simple insertion of the genome-targeting encoding section of the sgRNA downstream of a human U6 promoter.

Package Contents

- 20 µl pLVX-hyg-sgRNA1 Vector (Linear) (7.5 ng/µl)

Storage Conditions

- Store plasmids at –20°C.
- Spin briefly to recover contents.
- Avoid repeated freeze/thaw cycles.

Expiration Date

- Specified on product label.

Storage Buffer

- 10 mM Tris-HCl (pH 8.0), 1 mM EDTA (pH 8.0)

Shipping Conditions

- Dry ice

Product Documents

Documents for our products are available for download at **takarabio.com/manuals**
The following documents apply to this product:

- Lenti-X CRISPR/Cas9 System User Manual
- Lenti-X Packaging Single Shots Protocol-At-A-Glance
- pLVX-hyg-sgRNA1 Vector Information

Propagation in *E. coli*

- Recommended host strain: Stellar™ Competent Cells (Cat. No. 636763)
- Selectable marker: Plasmids confer resistance to ampicillin (100 µg/ml) in *E. coli* hosts.
- *E. coli* replication origin: pUC

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(022423)

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Cat. No. 632632

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Quality Control Data

Cloning efficiency

2 µl of pLVX-hyg-sgRNA1 Vector (Linear) was ligated with Guide-it™ Control Annealed Oligos, following the protocol outlined in the User Manual. After ligation, 5 µl of the reaction was used to transform 100 µl of Stellar Competent Cells, and serial dilutions were plated on LB agar + ampicillin plates. The total number of colonies in the positive reaction (with the annealed control oligos) was calculated to be 10,000 or more colonies, and the negative reaction (without the annealed control oligos) yielded ≤8% of the positive reaction. Sequence analysis using the Guide-it Sequencing Primer 1 verified that 80% or more of the colonies from the positive reaction had a correct insert.

Plasmid Identity & Purity

- Digestion with the indicated restriction enzymes produced fragments of the indicated sizes on a 0.8% agarose/EtBr gel:

Vector	Enzyme	Size
pLVX-hyg-sgRNA1	BsmBI	8.2 kb
	XbaI	6.7 kb, 1.6 kb

- Vector identity was confirmed by sequencing.
- A_{260}/A_{280}: 1.8–2.0

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

Notice to Purchaser

pLVX-hyg-sgRNA1 Vector (Linear)

CATALOG NO.

632632

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STATEMENT 272

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9/12/2023

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