funakoshi
FRONTIERS IN LIFE SCIENCE
www.funakoshi.co.jp/exports
Research Use Only

BioDynamics Laboratory Inc.

Efficient Knock-In by Genome Editing

Long single strand DNA (LsODN) Preparation Kit

For more information : http://www.funakoshi.co.jp/exports_contents/80479

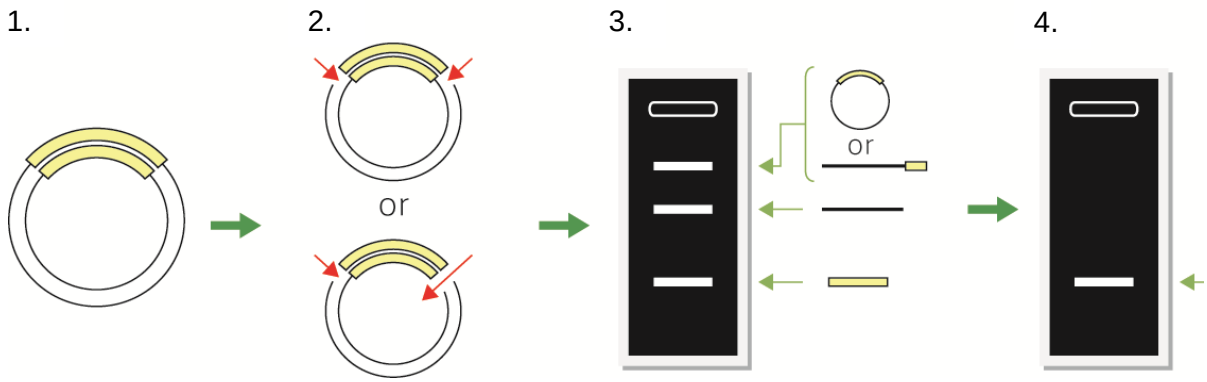
The Long ssDNA (LsODN) Preparation Kits provide a simple and easy method for generating a long ssDNA (<1,5 kb or < 3,0 kb).

Features

- A long ssDNA has a defined sequence and length.
- Simple principle and easy procedure.
- High yield and high quality.
- Best for effective knock-in by genome editing.

Principle

1. The DNA of interest is cloned into a plasmid using a pair of two nicking endonuclease sites or a combination of a nicking endonuclease site and a restriction enzyme site.
2. The resulting plasmid harboring the DNA is digested with a pair of two nicking endonucleases or a combination of a nicking endonuclease and a restriction enzyme.
3. The nicked plasmid is denatured and then subjected to agarose gel electrophoresis.
4. The band corresponding to a long ssDNA is excised and extracted.



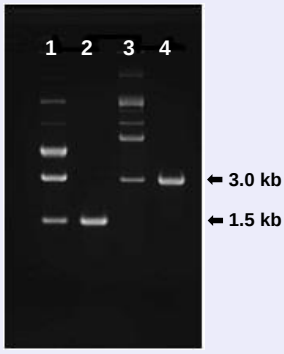
※ Nicking endonuclease is not contained in this kit.

Kit Contents

Long ssDNA Preparation Kit	
for 1.5 kb (#DS610)	for 3.0 kb (#DS620)
pLSODN-1 Plasmid 10 µg (0.5 µg/µl)	pLSODN-3 Plasmid 10 µg (0.5 µg/µl)
pLSODN-2D Plasmid 10 µg (0.5 µg/µl)	pLSODN-4D Plasmid 10 µg (0.5 µg/µl)
Denaturing Gel-Loading Buffer 1 ml (100 loadings)	
DynaMarker® Prestain Marker for RNA High 90 µl (18 loadings) *	

* Prestain Marker for RNA High is available separately.

Example Data



Lane 1: The double nicked pLSODN-1 harboring 1.5 kb DNA fragment

Lane 2: Purified long ssDNA (1.5 kb)

Lane 3: The double nicked pLSODN-3 harboring 3.0 kb DNA fragment

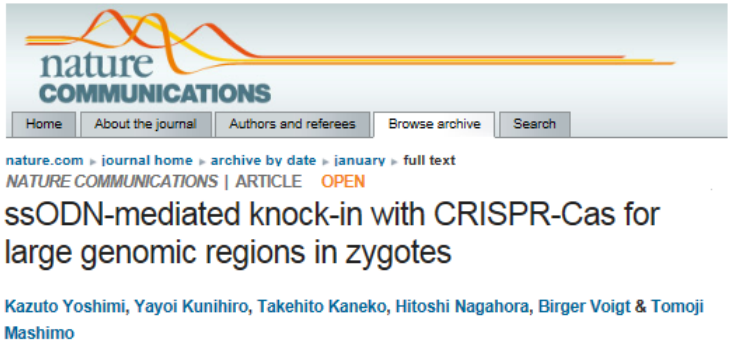
Lane 4: Purified long ssDNA (3.0 kb)

Figure : Long ssDNAs prepared by using this kit
A 1.5 kb DNA fragment of interest was cloned between the Nt.BspQI and the Nb.BsrDI sites of pLSODN-1.
Similarly, a 3.0 kb DNA fragment of interest was cloned between the Nt.BspQI and the Nb.BsrDI sites of pLSODN-3.
The plasmids were digested with Nt.BspQI and Nb.BsrD.
The double nicked plasmids were mixed with Denaturing Gel-loading Buffer and heated, then loaded to conventional non-denaturing agarose gel electrophoresis.
The band corresponding to a long ssDNA was excised and extracted.

Citation

ssODN-mediated knock-in with CRISPR-Cas for large genomic regions in zygotes.

Yoshimi K, Kunihiro Y, Kaneko T, Nagahora H, Voigt B, Mashimo T. *Nature Communications*. Jan; 20; 7:10431. (2016)
PMID: 26786405


nature COMMUNICATIONS
Home | About the journal | Authors and referees | Browse archive | Search
nature.com ▸ journal home ▸ archive by date ▸ january ▸ full text
NATURE COMMUNICATIONS | ARTICLE OPEN
ssODN-mediated knock-in with CRISPR-Cas for large genomic regions in zygotes
Kazuto Yoshimi, Yayoi Kunihiro, Takehito Kaneko, Hitoshi Nagahora, Birger Voigt & Tomoji Mashimo

Product Information

[Manufacturer : BDL]

Product Name	Code	Size	Storage
Long ssDNA Preparation Kit for 1.5 kb	DS610	1 kit	-80℃
Long ssDNA Preparation Kit for 3.0 kb	DS620	1 kit	-80℃

■ Related Products

[Manufacturer : BDL]

Product Name	Code	Size	Storage
DynaMarker, Prestain Marker for RNA High	DM260S	90 µl	-80℃
	DM260	180 µl	-80℃

Check it out !

For gel excision, our “Gel Pipette” and “Funa-Gel Tip” are recommended.

For details :

Gel Pipette
http://www.funakoshi.co.jp/exports_contents/80506

Funa-Gel Tip
http://www.funakoshi.co.jp/exports_contents/80485


Funa-Gel Tip


Gel Pipette

NOTE
※ All products here are research use only, not for diagnostic use.
※ Specs might be changed for improvement without notice.
※ Numbers after “#” represents product code.
※ Company name and product name are trademark or registered mark.
※ Please contact your local distributors for orders, quote request and inquiry.

Your Local Distributor

Bio-REV SCIENCES FOR LIFE

Bio-REV Pte. Ltd.
36 Toh Guan Road East, #01-39
Enterprise Hub, Singapore 608 580
Tel: (65) 6273-3022
Fax: (65) 6273-3020
Email: sales@bio-rev.com
Technical Support: techserv@bio-rev.com

Funakoshi Co., Ltd.
Address: 9-7 Hongo 2-Chome, Bunkyo-ku,
Tokyo 113-0033 JAPAN
Phone : +81-3-5684-6296
Fax : +81-3-5684-6297
Email : export@funakoshi.co.jp

ZF-Z04T-03 (2016.04)