Catalog No. BAM-02-703-EX

cDNA Library, *S. pombe*, Log Phase

BACKGROUND

This cDNA library (plasmid DNA) is constructed from *Schizosaccharomyces pombe* strain h-L972-derived poly(A)$^+$ RNA at the log phase by the Linker-Primer method (Ref.1) by Prof. H. Nojima of Research Institute for Microbial Diseases, Osaka University. cDNAs in this library are unidirectionally cloned by using the oligo $(dT)_{18}$ linker primer which contains the restriction enzyme sites of *Not* I, and *Bam*HI (*Bgl* II)-*Sma* I adaptor.

The pLZ3 vector used in this library can replicate both in *S. pombe* and *E.coli*, and express the *S. pombe* genes in mammalian cells as it contains SV40 promoter as well as in *S. pombe* (see Figure and Ref.2).

Applications:

1. PCR screening of known or unknown gene: Prepare the primers for the known or unknown gene (cDNA) and amplify the gene by PCR from this library followed by cloning to an appropriate vector (Ref 3). The cloned cDNAs are useful for identifying the coding region, large-scale protein production, and preparation of probes, etc. Standard amplifying conditions: 35 cycles of PCR reactions using 10-100 ng of cDNA as a template. (Change the quantity of template and the number of cycles depending on the expression levels of mRNA of the gene of interest.)
2. Cloning the cDNA by functional complementation of the corresponding S. pombe mutants.

Size:

500 ng (40 ng/ul, 13ul) in 10 mM Tris-HCl-1mM EDTA (pH 7.5)

Quality:

1) Number of independent clones: 28 x 10^6
2) Average insert size: longer than 1 kb

Storage:

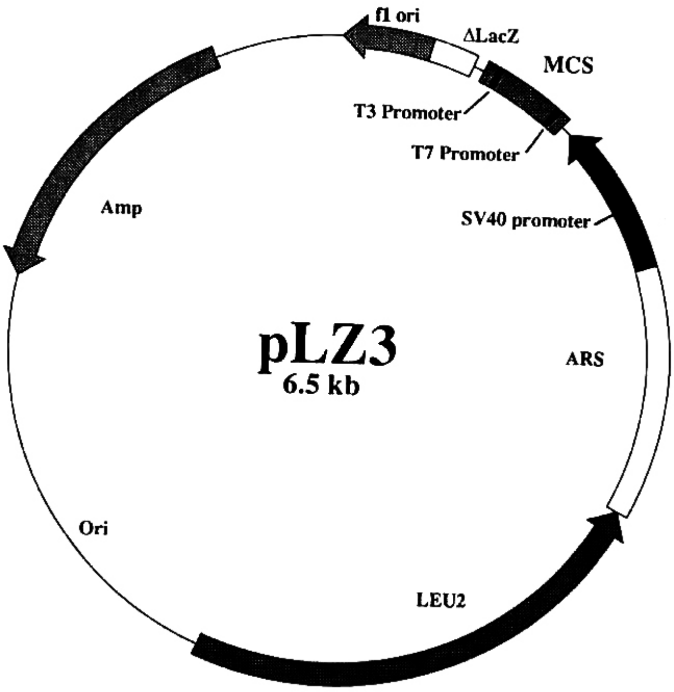
Store at -20°C

References:

1) Kobori M *et al* " Large scale isolation of osteoclast-specific genes by an improved method involving the preparation of a subtracted cDNA library." *Genes Cells* **3**: 459-475 (1998) PMID: 9753427
2) Tanaka S and Nojima H "Nik1: a Nim1-like protein kinase of *S. cerevisiae* interacts with the Cdc28 complex and regulates cell cycle progression." *Genes to Cells* **1**, 905-921 (1996) PMID: 9077450
3) Sambrook J and Russell DW Molecular Cloning Chapter 11 "Preparation of cDNA libraries and gene identification." CSHL Press (2001)

Note

* This library is to be used only by the purchaser. It is not allowed to amplify and transfer the library to a third person.
* Related products: human tissue specific cDNA libraries and cDNA libraries of model organisms.



; MCS(pLZ3)

Fig. Structure of pLZ3 and the restriction sites
Ars is the *S. pombe* region required for replication in *S. pombe*, and
Ori is a plasmid origin for replication in E. coli.

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