



cDNA Library, *S.pombe*; Meiosis

BACKGROUND

This cDNA library (plasmid DNA) is constructed from *Schizosaccharomyces pombe*, strain CD16-1(h+/h-) derived poly(A)+ RNA at the state of miosis by the Linker-Primer method (Ref.1) by Professor Hiroshi 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 site of *Not* I, and *Bam*HI (*Bgl* II)-*Sma* I adaptor.

The pAP3neo vector used in this library can express the *S. pombe* genes in mammalian cells as it contains SV40 promoter. It also contains f1 ori which is necessary for ssDNA synthesis, and bacteriophage T7 and T3 promoter for RNA synthesis (see Figure). GenBank Accession No. [AB003468](#)

Applications:

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. It is useful for large-scale protein productions, 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 genes.)

Size:

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

Quality:

- 1) Number of independent clones: 1.3×10^6
- 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) 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 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.

* For custom order of cDNA cloning from the libraries, construction of protein expression systems, and production and purification of proteins, contact with export@cosmobio.co.jp



Multiple cloning site (MCS) of pAP3neo

SacI
ApaI
EcoRI
MluI
T7 pro
EcoRI
AatII
XbaI
BglII
AflII
AscII
BstXI
PmaCI
BstEII
NheI
NotI
T3 pro
SplI
NruI
PacI
SacII
KpnI

MCS

SV40 promoter

Poly A signal

Splice signal

Poly A signal

neo

pAP3 neo

Ori

Amp^r

f1 Ori

SV40 promoter

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