

Rapid-Screen™ Arrayed cDNA Libraries

OVERVIEW

Incorporating patented technology*, OriGene Rapid-Screen™ Tools offer a quick, convenient, and cost-effective means of full-length gene cloning. Twenty, tissue-specific Rapid-Screen™ Arrayed cDNA Library Panels are available for customer cloning of full-length genes. Longest-Clone™ Screening Service is also available for contract screening of a 12-tissue human or a 6-tissue mouse panels and subsequent isolation of the "longest clone" from the selected library.

PRODUCT FORMAT

The Rapid-Screen Arrayed cDNA Library system utilizes two separate plates, a "Master Plate" and a "Sub-Plate" to isolate the clone of interest. The Master Plate is a standard 96-well microtiter plate arrayed with a size-selected cDNA library at a titer of approximately 5000 clones per well. The Master Plate is screened using gene-specific primers followed by agarose electrophoresis of the PCR products. Depending on the abundance of the gene of interest, positive wells are subsequently identified via corresponding bands on agarose gel. For each well of the Master Plate there is a corresponding Sub-Plate. Each Sub-Plate is arrayed at a titer of 50 clones per well. Gene-specific PCR is performed on the Sub-Plate to identify positive wells. Sub-plate clones are housed in E.coli. A small aliquot from the positive well(s) of the Sub-Plate are plated onto standard LB agar and grown

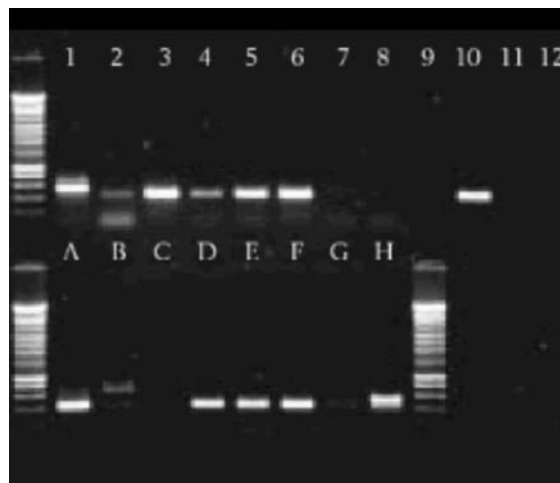
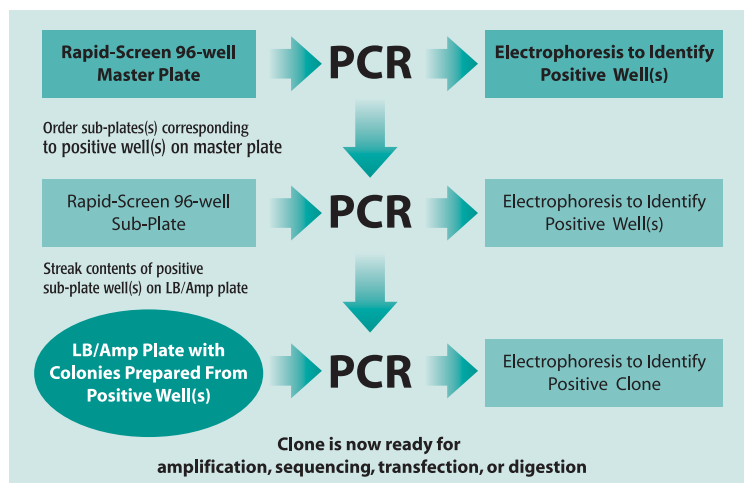
overnight. Using colony PCR, 96-colonies are screened with an average of approximately two positive clones per positive Sub-Plate well. These clones are easily amplified for further analysis.

PRODUCT APPLICATION

Rapid-Screen Arrayed cDNA Libraries can be used to clone alternatively spliced transcripts, even if the desired spliced variant is many times less abundant than its parent transcript. The detection of different-sized fragments through use of the 5' vector primer plus the 3' gene-specific primer is sometimes attributable to alternative-splicing rather than to truncated transcripts. If the alternate splicing has already been characterized, gene-specific primers that differentiate between the two spliced forms can be designed.

The figure below demonstrates the use of a pair of gene-specific primers with the pooling technique to detect two alternatively spliced transcripts of a particular gene. The shorter form was much more abundant than the longer one; the former appeared in seven of the twelve column pools (40,000 clones/pool) and four of the eight row pools (60,000 clones/pool). The longer form (approximately 210 bp longer) was found only in the column 1 pool and in the row H pool. Thus well H1 of the Master Plate contains the lower abundant transcript variant.

SCREENING SUMMARY



Rapid-Screen™ Arrayed cDNA Libraries

KIT COMPONENTS

- 96-well arrayed cDNA library Master Plate (5000 clones/well)
- Rapid-Screen vector primer pCMV6-XL4 (10 pmol/μl)
- Rapid-Screen positive control (483 bp)
- OriGene DNA Quanti-Ladder™, a ready-to-use molecular marker for easy quantitation and fragment size determination (100 μl for 20 lanes)
- Four 96-well plate re-sealing tapes
- 96-well arrayed cDNA library Sub-Plate (50 clones/well). Sub-Plates are not included with the kit.

ORDERING INFORMATION & PRICING

LIBRARY	CATALOG NUMBER
HUMAN	
Adult Brain	LAB-1001
Fetal Brain	LLFB-1001
Colon	LCO-1001
Heart	LHT-1001
Kidney	LKD-1001
Liver	LLI-1001
Lung	LLU-1001
PBL (Leukocytes)	LPBL-1001
Placenta	LLPC-1001
Skeletal Muscle	LMU-1001
Small Intestine	LSI-1001
Spleen	LLSP-1001
Testis	LTS-1001
MOUSE	
Adult Brain	MAB-1001
Embryo, Day 12.5	MEB-1001
Embryo, Day 19	MEA-1001
Liver	MLI-1001
Testis	MTS-1001
Thymus	MTM-1001
RAT	
Adult Brain	RAB-1001

**For pricing information call Customer Service at 1-888-267-4436 ext. 1.
To Order call 888-267-4436 (M-F, 9AM-5PM EST) or fax your order to 1-301-340-9254 (24 hours)
For Technical Support call 301-340-3188 ext. 2 or visit the OriGene website at www.origene.com**

PRODUCT DELIVERY AND STORAGE

Rapid-Screen Master Plates are shipped in dry format at ambient temperature. Sub-Plates are shipped on dry ice. Master plates and components should be

stored at -20°C for short-term storage and -80°C for long-term storage. Subplates should be stored at -80°C upon arrival.

*PCR is covered by patents issued to Cetus Corporation and is owned and licensed by Hoffman-LaRoche Molecular Systems, Inc. Purchase of any of OriGene's PCR-related products does not convey a license to use the PCR process covered by these patents. Purchasers of these products must obtain a license to use the PCR process before performing PCR.

+ PCR is used to screen the library; final clones are not PCR products. Clones contain the CMV promoter and are ready for expression in tissue culture cells.



TrueClone™ Collection Blue-Ribbon™ Reagents Rapid-Screen™ Tools

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