

# Rapid-Scan™ Gene Expression Panels

## OVERVIEW

Rapid-Scan™ is a PCR-based system which uses high-quality, first-strand cDNAs derived from various tissues and/or developmental stages to generate comprehensive expression profiles of any cloned gene or EST from human, mouse or Drosophila. Individual first-strand cDNAs are tested to assure that low abundance and long transcripts are represented and normalized using an internal standard. Serial dilution of the cDNA provides semi-quantitative determination of relative mRNA abundance.

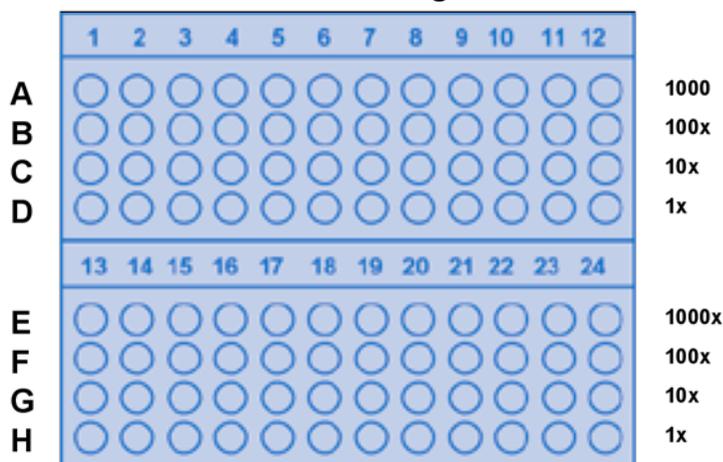
Rapid-Scan Gene Expression Panels are highly sensitive and provide rapid information on transcription accumulation sites. If more exact quantification and sizing of transcripts are required, the use of Multiple-Choice Northern Blots is recommended.

## PRODUCT FORMAT

Rapid-Scan Gene Expression Panels are used to determine the presence or absence of gene expression and survey expression levels in a variety of tissues.

First strand cDNAs are normalized and arrayed in a 96-well plate format to cover a 4-log dilution of each cDNA. Expression data is obtained in approximately three hours - simply perform PCR\* and electrophorese the PCR products on an agarose gel. Subsequent Northern blot analysis permits the simultaneous examination of gene expression in 6-12 tissues per plate.

### 24-Tissue Panel Diagram



## Panel Tissues

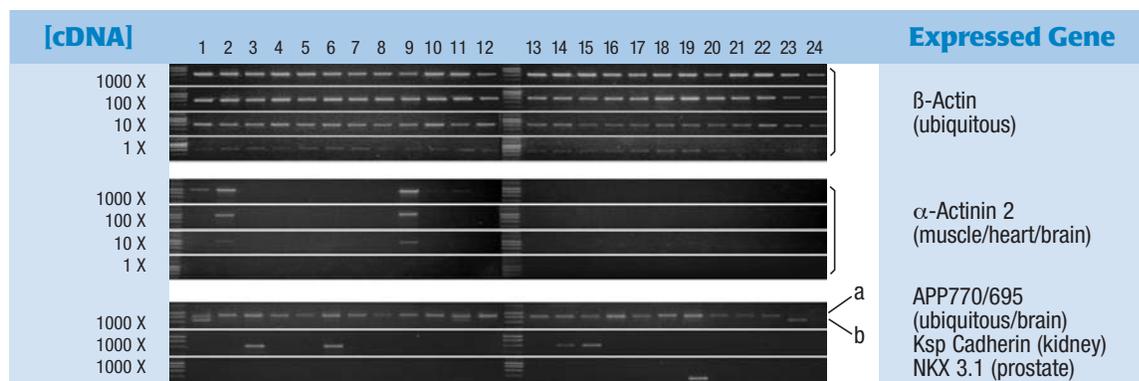
	Human	Mouse	Human Brain	Drosophila
1.	Brain	Brain	Frontal Lobe	Embryo 0-4 hour
2.	Heart	Heart	Temporal Lobe	Embryo 4-8 hour
3.	Kidney	Kidney	Cerebellum	Embryo 8-12 hour
4.	Spleen	Spleen	Hippocampus	Embryo 12-24 hour
5.	Liver	Thymus	Substantia Nigra	1st Instar
6.	Colon	Liver	Caudate Nucleus	2nd Instar
7.	Lung	Stomach	Amygdala	3rd Instar
8.	Sm. Intestine	Sm. Intestine	Thalamus	Pupae
9.	Muscle	Muscle	Hypothalamus	Male Head
10.	Stomach	Lung	Pons	Female Head
11.	Testis	Testis	Medulla	Male Body
12.	Placenta	Skin	Spinal Cord	Female Body
13.	Salivary Gland	Adrenal Gland		
14.	Thyroid Gland	Pancreas		
15.	Adrenal Gland	Uterus		
16.	Pancreas	Prostate Gland		
17.	Ovary	Embryo e8.5		
18.	Uterus	Embryo e9.5		
19.	Prostate	Embryo e12.5		
20.	Skin	Embryo e19		
21.	PBL+	Breast/Virgin		
22.	Bone Marrow	Breast/Pregnant		
23.	Fetal Brain	Breast/Lactating		
24.	Fetal Liver	Breast/Involuting		

# Rapid-Scan™ Gene Expression Panels

## PRODUCT APPLICATION

The data below illustrates ubiquitous expression ( $\beta$ -Actin), tissue-specific expression ( $\alpha$ -Actin 2), and expression of tissue-dependent alternatively spliced

transcripts (APP770/695) using 24-Tissue Human Rapid-Scan Gene Expression Panels.\*



## KIT COMPONENTS

- Two identical, sealed, 96-well format plates containing dried, serially-diluted, PCR-ready, first-strand cDNAs
- Two adhesive cover sheets for sealing the plates prior to performing PCR
- Control primer pair for detection of  $\beta$ -actin cDNA (1 nmol each/200  $\mu$ l for 100 reactions)
- OriGene DNA Quanti-Ladder™, a ready-to-use molecular marker for easy quantification and fragment size determination (100  $\mu$ l for 20 lanes)
- OriGene Rapid-Load™, a loading dye for electrophoresis of PCR products that may be added prior to PCR for quick and easy electrophoresis (1.5 ml for 200 reactions)

## ORDERING INFORMATION & PRICING

RAPID-SCAN GENE EXPRESSION PANELS	CATALOG NUMBER
Human 24-Tissue Rapid-Scan Panels	HSCA-101
Human Brain 12-Tissue/Region Rapid-Scan Panels	BSCD-101
Human Breast Cancer 24-Tissue Rapid-Scan Panels	TSCE-101
Mouse 24-Tissue Rapid-Scan Panels	MSCB-101
Mouse Brain 48-Tissue/Stage Rapid-Scan Panels	NSCF-101
Drosophila 12-Tissue/Region Rapid-Scan Panels	DSCC-101

**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](http://www.origene.com)**

## PRODUCT DELIVERY AND STORAGE

Each Rapid-Scan Kit contains two complete panels.  
KITS shipped at room temperature. Long-term storage at  $-20^{\circ}\text{C}$  is recommended.



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

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\*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.

+Peripheral Blood Leukocytes

### #References

1. Conrad, C., Vianna, C., Freeman, M., and Davies, P. A polymorphic gene nested within an intron of the tau gene: Implication for Alzheimer's disease. *Proc. Natl. Acad. Sci. USA* 99: 7751-7756, 2002.

2. Bera, T.K., Iavarone, C., Kumar, V., Lee, S., Lee, B., and Pastan, I. MUP9, an unusual truncated member of the ABE transporter superfamily, is highly expressed in breast cancer. *Proc. Natl. Acad. Sci. USA* 99: 6997-7002, 2002.

3. Opavsky, R., Haviernik, P., Jurkovicova, D., Garin, M.R., Copeland, N.G., Gilbert, D.J., Jenkins, N.A., Bies, J., Garfield, S., Pastorekova, S., Oue, A., and Wolff, L. Molecular characterization of the mouse Tem1/endothelial gene regulated by cell density in vitro and expressed in normal tissues in vivo. *J. Biol. Chem.* 276: 38795-38807, 2001.