## **Universal Reference Products**

- From Human, Dog, Monkey, Mouse, and Rat
- Male and Female Adults from Each Species
- Broad Representation of Genes and Proteins

## **Universal Total RNA**

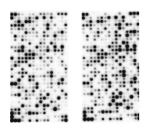


Fig. 1. The consistent micro array hybridization result by using the same amount labeled Humane Universal Total RNA from two different lots

- 1. Optimization and troubleshooting for both single and two color microarrays
- 2. Internal standard for two color microarrays
- Optimization and troubleshooting for both real-time and conventional RT-PCR
- 4. Determination of standard curves and amplification efficiencies for realtime RT-PCR

## **Universal cDNA**

Universal cDNAs are used as controls for real time PCR and regular PCR, and also gene pools for cloning genes from human, dog, monkey, mouse, and rat tissues

## **Universal Protein Lysate**

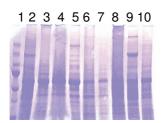


Fig. 2. Universal Protein Lysate covers broad representation of proteins
The protein lysate from lane 2 to lane 10 are:
Human Universal protein lysate, placenta;
Testis; Ovary; Spleen; Thymus; Brain; Liver; and Pancreas

Universal Protein Lysates are used controls for comparison of protein expression and antibody microarray study