

Certificate of Analysis

Product Name:

- Universal RNA - Human
- Universal RNA - Monkey (Cyno. and Rhesus)
- Universal RNA - Dog (Beagle)
- Universal RNA - Mouse
- Universal RNA - Rat
- Universal RNA - Chicken

Catalog No.: R4234565 or R4234565-1
Catalog No.: R4534565 or R4534565-1
Catalog No.: R4734565 or R4734565-1
Catalog No.: R4334566 or R4334566-1
Catalog No.: R4434567 or R4434567-1
Catalog No.: R4C34565 or R4C34565-1

Shipping Condition: Dry Ice.**Storage Condition:** -70°C**Shelf Life:** Half a year from the date of receipt under proper storage condition**Description****Total RNA is isolated by modified guanidine thiocyanate techniques.**

- **Human Universal RNA** is prepared from major organs of both male and female adult donors. This total RNA serves as a standard for comparison of gene expression from microarray studies.
- **Dog Universal RNA** is prepared from major organs of both male and female adult donors. This total RNA serves as a standard for comparison of gene expression from microarray studies
- **Monkey Universal RNA** is prepared from major organs of both male and female Cynomolgus and Rhesus monkey adult donors. This total RNA serves as a standard for comparison of gene expression from microarray studies
- **Mouse Universal RNA** is prepared from several male and female Balb/C mice whole bodies without fur. This total RNA serves as a standard for comparison of gene expression from microarray studies
- **Rat Universal RNA** is prepared from several male and female Sprague Dawley or Wistar rat whole bodies without fur. This total RNA serves as a standard for comparison from microarray studies
- **Chicken Universal RNA** is prepared from major organs of both male and female adult chickens. This total RNA serves as a standard for comparison of gene expression from microarray studies.

Quality Control

1. The integrity of the RNA is examined by visual inspection for the presence of intact bands of 18s and 28s ribosomal RNA when electrophoreses on a denaturing agarose gel. The quality and purity of total RNA were tested by spectrophotometer. A_{260/280} is between 1.8 and 2.0 (detected in 10mM Tris-HCl, pH 7.5)
2. The Universal RNA is analyzed by capillary electrophoresis with Agilent 2100 bioanalyzer. RNA integrity is determined with RIN (RNA Integrity Number) 7, and the area of 28s over 18s ratio 1.
3. The RNA is treated by DNase I, and is tested as DNA free RNA by PCR
4. cDNA synthesis is successfully performed by using this RNA as template
5. Universal RNA is labeled and hybridized to a cDNA microarray, expected result of gene expression is consistent with each lot.

FOR IN VITRO RESEARCH USE ONLY**APPROVED BY:** _____