

# RNA Isolation guide

| Nucleic Acid to purify               | Sample Volume Sample  | Isolation Method  | Product   | When to use   | Advantages/Observations   |
|--------------------------------------|---|---|---|---|---|
| <b>Total RNA</b>                     | Tissues: 5 to 100 mg<br>Cells: 100 to 10x10 <sup>6</sup>  | <b>Buffer Solutions</b>                                       | <b>REALTOTAL RNA from Tissues and Cells Kit</b>                                 | The method can be scaled. Rapid and non-expensive.  | Toxic reagents are not used.  |
|                                      |   |   | <b>REALTOTAL RNA from Tissues and Cells Kit "STAR"</b>                          | Specially designed for RT-PCR. Includes all the necessary reagents to remove contaminant DNA.   |   |
|                                      | Tissues: 5 to 100 mg<br>Cells: 100 to 10x10 <sup>6</sup>  | <b>Silica Membrane Column</b>                                 | <b>REALTOTAL RNA SPIN PLUS</b>  | High quality RNA is obtained.   | DNA-free total RNA, elimination of contaminat DNA takes place on the column.  |
|                                      | Bacteria: 1 ml ; 10 <sup>9</sup><br>Yeast: 1ml ; 10 <sup>7</sup>  | <b>Buffer Solutions</b>                                       | <b>REALTOTAL RNA from Bacteria and Yeast Kit</b>                                | Rapid and non expensive   | Toxic reagents are not used.  |
|                                      |   |   | <b>REALTOTAL RNA from Bacteria and Yeast Kit "STAR"</b>                         | Specially designed for RT-PCR. Includes all the necessary reagents to remove contaminat DNA.  |   |
|                                      | Blood: 300 µl   | <b>Silica Membrane Column</b>                                 | <b>REALTOTAL RNA SPIN BLOOD</b>   | High quality RNA is obtained. DNA-free total RNA .  | It contains a Stabilizing Solution wich allows a safe transport from the collecting place to the laboratory.  |
|                                      | Plants and Fungi: <100 mg   |   | <b>REALTOTAL RNA SPIN Plants and Fungi</b>                                      | High quality RNA is obtained. DNA-free total RNA .  | It contains a PVP solution to remove carbohydrates and polyphenols and 2 differents Lysis   |
|                                      | Biological fluids (serum, plasma, saliva, etc), bacteria, yeast, paraffin-embedded tissue and cleaning reactions. |   | <b>REALTOTAL RNA SPIN PLUS</b>  | High quality RNA is obtained. DNA-free total RNA .  | Total RNA prepared can be used in applications such as RT-PCR, Northern, primer extension, array technology and Rnase protection.   |
|                                      | Cultured animal cells, tissue samples, blood, bacteria, yeast, fungi, biologicals fluids and plants.              | <b>Spin Column Chromato-graphy</b>                            | <b>ARNzol Kit</b>   | The kit purifies all sizes of RNA, from large mRNA and ribosomal RNA down to microRNA (miRNA) and small interfering RNA (siRNA).  | Rapid and very economical method.   |
| Total RNA from all types of samples. | <b>Enzimatic and resin</b>  | <b>REALSTAR</b>   | To remove contaminant DNA from RNA samples and for removing the DNase after the | Fast and easy method. The DNase removal step takes place in just 3 minuts.  |   |
| <b>Micro RNA</b>                     | Cultured animal cells, tissue samples, blood, bacteria, yeast, fungi, biologicals fluids and plants.              | <b>Silica Menbrane Column and Spin Column Chromato-graphy</b> | <b>REALTOTAL MicroRNA Kit</b>   | Rapid and efficient method for the isolation and purification of small RNA molecules (<200 nt). These small RNAs include regulatory RNA molecules such as microRNA (miRNA) and short interfering RNA (siRNA). | Most commercial RNA purification kits do not recover RNA molecules smaller than < 200 nucleotides, using two sequential filtrations with different ethanol concentrations, an RNA fraction highly enriched in RNA species < 200 nucleotides can be obtained . |
|                                      |   |   | <b>REALPURE SPIN DNA/RNA Kit</b>  | Rapid method for the isolation and purification genomic DNA and total RNA simultaneously from a single sample.  | RNA and DNA are derived from the same sample. The kit purifies all sizes of RNA, from large mRNA and ribosomal RNA down to microRNA and small interfering RNA   |
| <b>Genomic DNA And Total RNA</b>     |   |   |   |   |   |